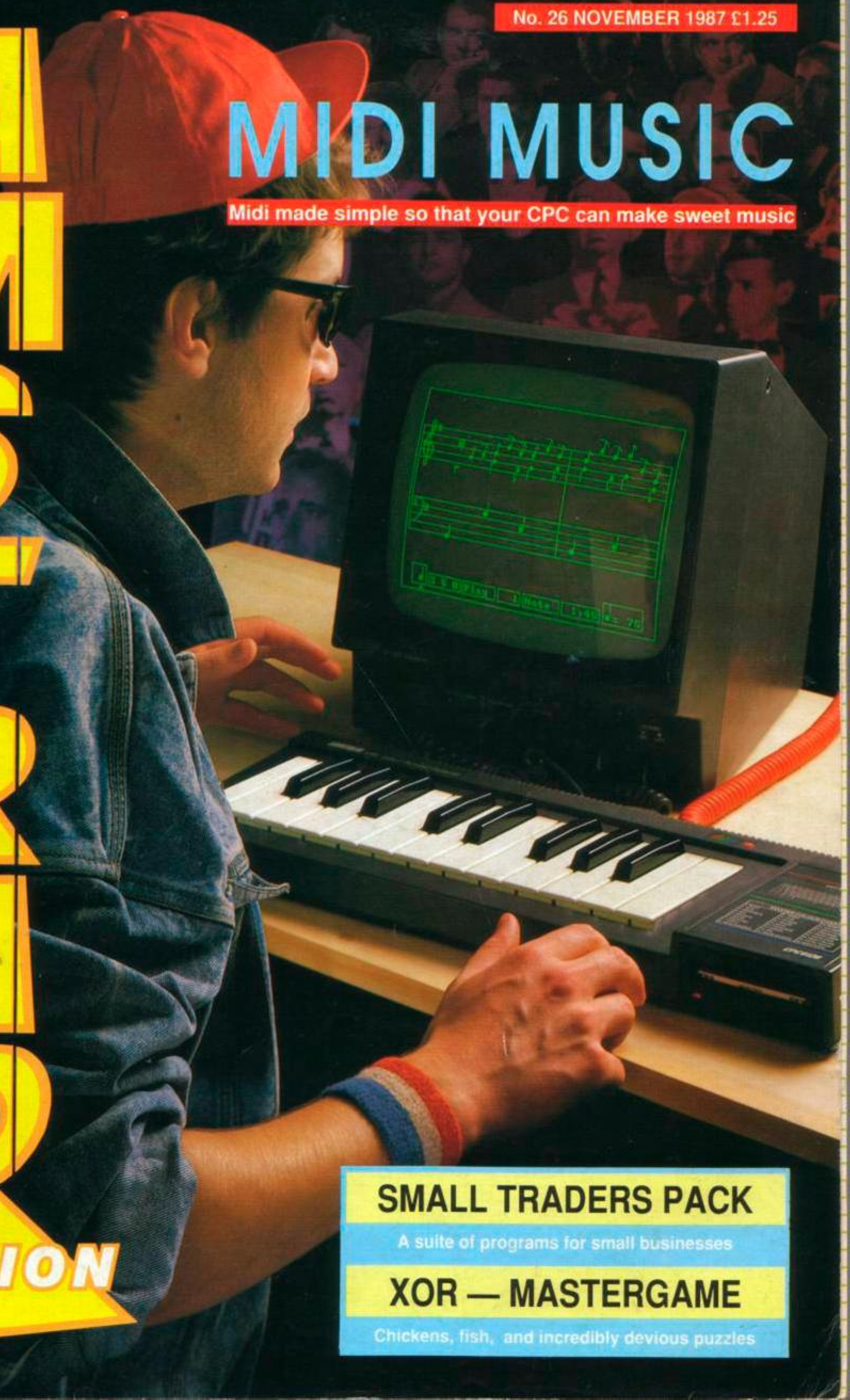
BRITAIN'S LEADING MAGAZINE DEVOTED TO THE AMSTRAD CPC 464, 664 AND 6128

No. 26 NOVEMBER 1987 £1.25

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AMSTRAD ACTION

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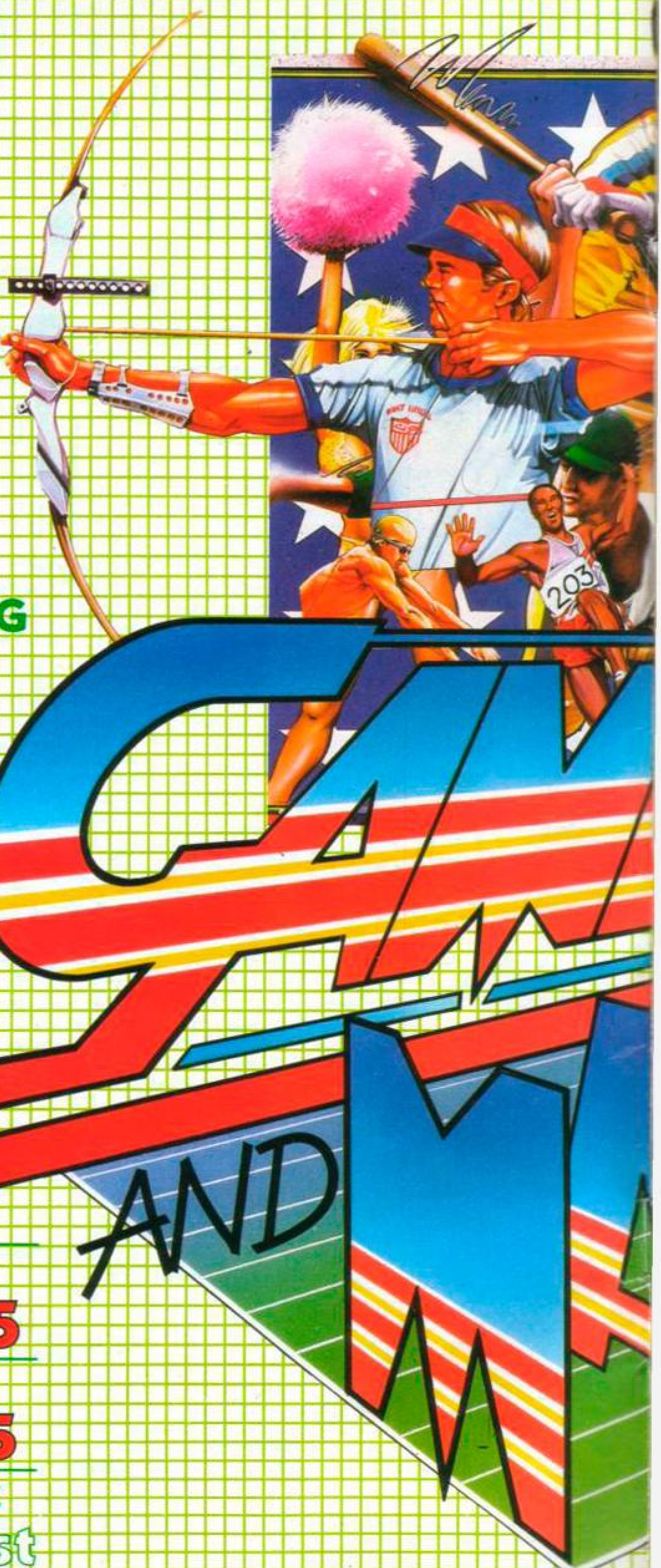
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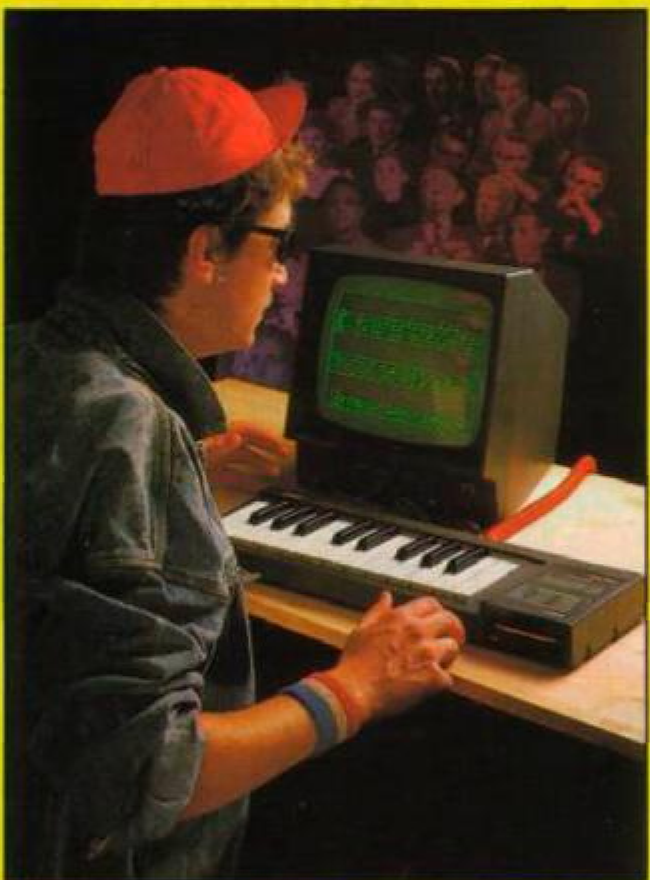
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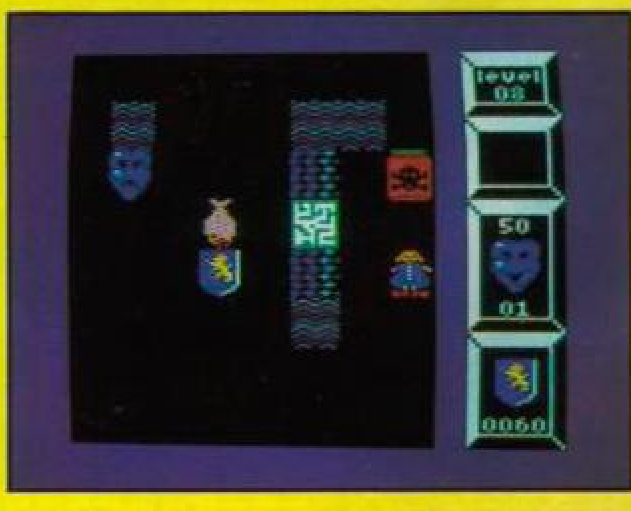
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THE LINE-UP

AMSTRAD ACTION NOVEMBER 1987







INTERACTION

CREATED BY YOU AND FOR YOU



WRAPPING UP

THINGS TO BUY • BYE

Show Stopper

The PCW Show will be over by the time you read this, and the whole industry will be breathing a sigh of relief. The calm doesn't last long because Christmas is frighteningly near and the software houses are trying to get product out in time for the big sales period. It's make or break time for many — if they don't have a good Christmas they won't survive the summer.

This Christmas will also be crucial in determining the future of the hardware market. It may well see the final fling of the old 8 bit micros and the emergence of the new 16 bit machines. Obviously our own beloved CPC's are part of the 8 bit brigade along with the Spectrum and Commodore 64.

It's a fairly safe bet that the 16 bit machines, like the Atari ST and Amiga, will become the most prominent machines over the next year. However, the 8 bit market will only contract gradually and, judging from our usual reader response, interest in the CPC's will maintain a high level for a long period. Perhaps the most encouraging prediction I can make, is that as soon as there is a mass market for a 16 bit home micro, then I won't be at all surprised to see a 16 bit CPC marketed at a devastatingly low price.

On another subject, we are now unable to receive or send mail via Telecom Gold or Prestel, so you'll just have to contact us by old fashioned methods like semaphore and smoke signals.

I'm off for two glorious weeks in the sun now. By the time I get back the autumn leaves will be falling and hopefully I'll be the same colour as them — golden brown.

Bob

Amstrad Action
Future Publishing Limited
4 Queen Street
Bath BA1 1EJ

Fax 0225 446 019
Telephone 0225 446 034

Editor: Bob Wade
Technical Editor: Richard Monteiro
Staff Writer: Gary Barrett
Contributors: Chris Boothman, Pat McDonald, Steve Cooke
Art Editor: Ollie Alderton
Art Team: Angela Neal, Sally Meddings
Publisher: Chris Anderson
Production: Diane Tavener

Subscriptions: Carrie-Anne Porter
The Old Barn, Brunel Precinct, Somerton, Somerset TA11 7PY
Telephone 0458 74011

Advertisements: Anne Deaney
4 Queen Street, Bath BA1 1EJ
Telephone 0225 446 034

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REACTION

There's some very heated debate this month on the rights and wrongs of software piracy. I've tried to put our point of view on the subject, so perhaps you'd let us know how you feel about the situation and suggets possible remedies for it.

The address to send your letters to is still : Reaction, Amstrad Action, 4 Queen Street, Bath BA1 1EJ. Remember we can't reply personally to letters, otherwise we wouldn't have time to produce a magazine each month. All mail-order and subscription enquiries or problems should be aimed at our Somerton address listed on Line-up - we just have to pass them on if they come here.

Viva Espana

While on holiday in Spain in May I came across a computer software shop. There was a very large selection of games software for the Amstrad, including many of the top selling British games,*Short Circuit* etc. and many Spanish games (two of which I see are reviewed in AA July '87, *Army Moves* and *Livingstone*).

The highest price for any of these games was 875 Pesetas, which is £4.00 to £4.50 depending on the exchange rate. This raised two questions in my mind:

1. Why are games so much cheaper in Spain than in England?

2. I will be returning to Spain later in the year — can I run these Spanish games on my English CPC (perhaps with the aid of a Spanish — English dictionary)?

Tony Smith
Birmingham

As far as I know the software should run on your English CPC. As to the prices, there are a number of possible explanations. They might be pirated, licenced locally where their overheads might be lower, or the Spanish market may have a well established price bracket that is different from ours. Indeed the £8-£9 price bracket over here has been under threat for some time from the budget houses and there have been attempts to establish a new bracket at about the £5 mark.

Bottle-glass, 464-6128

You often have letters in your Reaction pages concerning the compatibility of the 464 with the 6128. Some of your readers who wish to run software written for the 6128 only, may be interested to know that the 464 can be converted into a 6128.

I have owned a 464 with DDI-1 for some time now, but it was my purchase of the DK'Tronics 64K upgrade, which prompted me to investigate the possibility of converting my machine. I obtained the Amstrad 40025 ROM, from CPC Ltd, at 194-200 North Road, Preston, Lancs. (Tel 0772-555034.) Price £21.24.

Fitting the new ROM is simply a matter of removing the 6 screws which hold the 464 together. Once inside, locate the ROM marked 40009, remove it, and replace it with the new 40025 ROM. On "vers A" simply unplug the old one and plug in the new one. "Vers B" has the 40009 ROM soldered into its PCB and really needs expert handling to replace it with the new one.

I am happy to report that the conversion is a complete success on my "vers B" 464, and on a friend's "vers A". I am now able to run software such as "The Pawn", and use commands such as |ERA,"*.BAK", but with the advantage of the superior 464 keyboard layout.

John A Carver
Romsey

We haven't had a chance to test this method out for ourselves but we'll be looking into it. In the mean time we'd just like to remind you that it will invalidate your guarantee and shouldn't be attempted unless you're confident you know what you're doing.

Beau Jolly folly

This is a serious plea for help. A Little while back I purchased *Computer Hits 2* as I thought it was good value. However, when I got the tape home I discovered that it was faulty. So I decided to send it back to Beau Jolly, as they stated on the cassette cover that they would replace any faulty tapes.

I sent the tape over a month ago and have written numerous times to no avail. It looks like my money has gone down the drain and I'll never see my tape again.

I thought software houses were meant to replace faulty tapes and be helpful, not confiscate them. In the future I shall be very careful about buying tapes. Are software houses usually like this? I don't suppose you know how I can get my tape back?

Well anyway, I'll end on a high note. As one of your few female readers, I think you mag is Fab!

Miss S.N Amaranayake
London SE1

In this case the software houses is meant to replace faulty tapes. Generally they're more than willing to do so and I hope that this is just a case of an administrative cock-up. If their not responding to letters, then phone them on (07372) 22003.

Football crazy

How many different football games are there out on the CPC on tape, and which is/are the best?

These are the one's I know of: *Big League Soccer* (Viper), *Bryan Robson's Super League* (?), *Football Manager* (Addictive), *F.A.Cup Football* (Virgin), *Footballer of the Year* (Gremlin), *Five-A-Side Soccer* (Mastertronic), *Brian Clough's Football Fortunes* (CDS), *Glenn Hoddle's Soccer* (Amsoft/Shirekilo), *Peter Shilton's Handball Maradona* (Argus press Grand slam), *Indoor Soccer* (Magnificent 7), *League Challenge* (Atlantis), *Mexico 86'* (Qualsoft), *Soccer 86'* (Activision/Loriciels), *World Cup Carnival* (US Gold).

I am interested in buying *Big League Soccer* but am wondering where I can get it from. I don't think I have missed any.

Andrew Soccer Buff
Ross-shire

You missed some, but I couldn't give numbers on how many there are because many are no longer available. Big League Soccer *is your best bet as a strategy game with highlights.* BC's Football Fortunes *is a good mix of computer and board game.* Soccer 86' *or* Match Day *are probably still the best arcade type football games. However, it might be worth waiting to see what* Football Manager II *is like before making your decision.*

Danish interpreter

In answer to Gavin Manning, who was April-fooled about using the Basic interpreter as a compiler: the Basic interpreter looks at each line of Basic; even if it did lay down machine code somewhere and then told the Z80 to execute it, you'd have a hard time finding out just where it might be.

However, some statements would never get translated, think of a GOTO or GOSUB, which simply make the interpreter skip to a different line of your Basic program — no MC is produced.

Actually, I doubt that MC is ever produced because if I were the interpreter and I've worked out what a line means, it would be easier for me to do it, than to make up some MC for the Z80 to do it for me, wouldn't it mate?

Dieter Britz
Aabyhoj
Denmark

The Amsbible?

In the beginning there was a god, who was known as AMS. AMS was



"I JOINED TO FORGET — THAT WIZBALL WAS DRIVING ME MAD..."



worshipped by a group of four-hundred and sixty-four "Trads" (an ancient tribe whose famed diet consisted of purely silicon chips). As time passed this tribe where known as the "Amstrad 464".

For these Trads, AMS (or ALA) as he was nicknamed) gave a group of commandments, and he called them ACU. He saw what he had done was bad, so he sold them off. He also sold them entertainment games. He saw what he had done was bad so he gave them away free.

As the population boomed, a young group of 664 trads moved away from the old 464. They called themselves the Amstrad's 664, but AMS didn't like this rival group, so he sent down a plague to destroy them. A lot of angry letters later the last of the 664 died and AMS replaced them with the Amstrad 6128 tribe after another population boom.

Then the trads decided money was what they wanted, so they became business minded. They were called Amstrad 8256 and later (as they reproduced) the 8512. But along way away, a group of IBM (another god) worshippers started beating up the 8512. AMS produced some police constables and called them the Amstrad PC's.

Amid this confusion a new era dawned and a rebel group of trads broke away and formed their own commandments and everyone saw they were good. AMS was annoyed that he hadn't had such a brilliant idea. The commandments were called Amstrad Action, and they grew from strength to strength.

Thomas Dunmore
Wells
Zummersette

Well, thanks for clearing all that up. Perhaps you ought to send your studies on population growth to the census bureau. I'm sure they'd be fascinated.

How bad could it be?

4 pm Sunday the 12 July, 1987. What a day, my wife and I have our feet in iced water to cool them down, why? Read on.

The big day is here the Amstrad Computer Show here we come. With great excitement we bundle the baby into the car and start the 10 mile drive to the baby sitters (good old nanny and grandad). Got there as scheduled but 5 miles out from Kidbrooke on the way to the Ally Pally, there's a strange revving noise from the engine, but we're not moving and it's in gear? The bloody clutch has gone. Sunday morning not a taxi or bus in sight, nor a phone box. So we walked back to good old nanny & grandad's and got a lift to the Elephant & Castle Underground.

Half hour and one change later and we were waiting for a W3 Bus. Twenty minutes later we decided to walk. So we walked & walked, up & up. Then, in the distance, we saw it — the Amstrad Computer Show, and in we went. After all compared to £53 for a clutch, £4 in fares, two pairs of shoes and a marathon walk, £3.00 to get in seemed like a drop in the ocean. Shame all we could afford after that was a few empty disk cases and an assembler.

Alan & Tina Pocock
Walworth

No–one expects the...

How do I get hold of the firmware manual for the disk drive and the 464, or failing that the manual for the 6128? Who is the mysterious CB? Would you like an improved version of *GIGO*, one that nearly always gives a sensible reply? If you can't give a course on hacking, then why not a course in getting past loaders? Have you ever paid £100 for a Type-in and if so which one? Does anyone want to sell issues 2 and 11 of AA? Why not include more features in your magazine like interviews, how-to machine code, in depth reviews and what's involved in producing an issue of AA? Who writes the replies to the letters? Please answer these questions!

Tommy Daffin
South Brewham

Okay let's make this brief and in order. Order SOFT 158A from Amsoft [0277 228888] See last month. Yes. It encourages piracy. Yes, on the cover cassette. We'll soon know, won't we. If most readers ask for it, we'll do it.I do (?!)

Shining wit

The letter in issue 22 from Turkey (how apt!) congratulating you on your mail order service, caused a wry smile to spread over this old careworn face of mine, owing to the fact that my own software has been on order since early May...

It is quite possible that your recent move has delayed despatch, although I strongly suspect that certain elements within your organisation resent the fact that this software was purchased with the help of a voucher, won for a brilliantly witty and intellectual letter in issue 20.

As I am not known as the Oscar Wilde of the 6128 for nothing, you are hereby warned that it is my intention to submit a regular stream of similar academic merit, until such time as cries of "mercy" are heard or my software arrives.

To this end I demand answers to the following:

* Is Clive Sinclair on a Sugar-free diet?
* Did your subscriptions lady ever star with Sid James in one of the Carrie-Anne films?
* How do you tell when Bob Wade has been using the 6128? Tipp-Ex on the VDU.
* Who recorded the Country and Western hit "Stand by Hermann"?
* If Mr Sugar had been christened Brian Arthur, would he have called his company Bastrad, and hope he could sue the Guardian for the inevitable spelling error?

Do I hear shouts of "Less, less"... or is it simply the thud of software on doormat...?

Norman Appleton
Aylesbury

Enough already! You've already contravened the Geneva convention by using torture. Hopefully we'll get this sorted out, but if Carrie-Anne gets hold of your address then that thud may be the sound of brick on Norman.

Universal advice

Richard Nellist (Reaction 17) advised people who wish to own a CPC without monitor, to use mail-order catalogues like Great Universal. This warning may be a little late but I strongly recommend people not to use these mail-order catalogues. They lure you with free gifts and con you later.

These catalogues charge outrageous prices and, in my experience, I have found it is cheaper and more value for money to use electrical retailers like Currys. I have devised an up to date comparison between Currys and Littlewoods. It should speak for itself.

Littlewoods £219.99, you get:

1. Computer (Amstrad CPC)
2. Modulator
3. 12 games pack

Currys £199.95, you get:

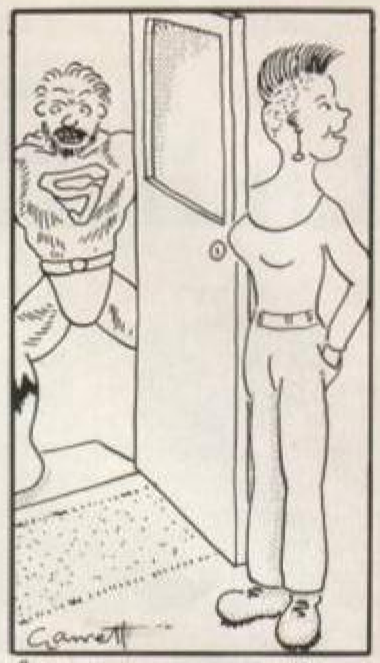
1. Computer (Amstrad CPC)
2. Green monitor
3. Modulator
4. Joystick
5. 12 games pack

As you can see, Currys can offer you the CPC for £20.04 less with the addition of a joystick and a green screen monitor thrown in.

Mr Hoi Tong Cheng
Hertford

Helping hand

You just have to help me! I want to



"GUY HERE ABOUT THAT COMPLAINT YOU MADE TO AMSTRAD ... "

be a computer programmer but I just don't know the best way of becoming one. I'm not sure which area of programming I would like to go into, whether it be games programming or more serious stuff. I have just passed eight "O" Levels, including Maths, Computer Studies and Physics (although how I passed that will remain a lifetime mystery).

I have decided to do three "A" Levels in Maths, Accounts and Computers, and I am thinking about the possibility of going to University to study computer science. I have asked many people for their advice but they have all told me different stories. Some say I need a degree, some say I don't, some say I should do "A" Levels, while others say I should leave school now and try to get a job as a trainee programmer with a software company.

What do you think? I would be very grateful for your advice and may even think about devoting the rest of my life to reading your mag (which is mega brill by the way). Please, please help me, your are my only hope.

Dudley Adshead
Rainham

For a start you can forget about devoting your life to reading the mag — devote it to what's important, you. As to when you should leave full-time education, it depends on many factors. If you want to go into games programming then qualifications won't be essential, just helpful indicators as to your intellectual ability. What will matter to a software house is your ability to program.

The games side of the industry is very precarious and on no account should you quit school

or college until you've got a guaranteed job with reasonable prospects. Otherwise you'd be taking a big risk that you might well regret. Try to write programs in your spare time and submit them to software houses so that they can assess your potential.

The serious side is a bit more clear cut. If you want to go all the way in that field then you're going to need both qualifications and experience. Once you've a good idea of what you want to do, contact companies involved in that field and find out exactly what they're looking for — they're the best ones to advise you on what you should do.

Desperate for Pawn

Please, please, please can you help me. I very much enjoy playing adventure games on my Amstrad CPC 464, but as you all realise, the best adventures sold today are available on disk. I speak notably of Magnetic Scrolls and Infocom adventures, this is my problem.

I would dearly love to play *The Pawn* on my CPC 464, in your magazine you stated that the *The Pawn* would only work on the CPC 6128. I take it that this means that if I added a disk drive and a 64K expansion to my CPC 464 I would then be able to load and play *The Pawn*, using commands within it's program that are known by the 6128 only, e.g. commands like Fill that can be used on the 6128 but not the 464.

Paul "I'm desperate" Chambers, Tewkesbury

Unfortunately it's not that easy. You would also need to get hold of a 6128 Rom, which will give you the necessary additional commands. For more info on that, see the letter entitled Bottle-Glass, 464-6128.

Quality not quantity

I have switched to a 464 recently and been pleased about the 12 free games, but when I tried to find games like *Slapfight*, or *Army Moves* I could not find them. Also as I looked across the piles of software, I looked down to the bottom shelf where the Amstrad software was, I nearly went crackers, because there was only half the amount of software that there was on the Spectrum or Commodore shelves. Is it because that the software for the Amstrad is of more quality than quantity?

Sean Silford
Plymouth

The CPC games market certainly runs third to the Spectrum and 64 in terms of quantity. However, the graphic and sound capabilities of the Amstrad, far exceed those of the Spectrum, which is reflected in most games.

The 64 is a much different machine so it's hard to make comparisons, but, to coin a phrase, what you lose on the scrolling, you gain on the detail and colour. I don't think you'll have much trouble finding good games, just keep reading Action Test and take advantage of our special offers pages.

Mega typist

I am writing to ask about Amsoft's game *Sorcery+*. When ever I play and get on the score board I am really pleased because I have never been much good at it. The thing that gets me so annoyed that I never want to play it again, is that when I do get a chance to put my name on the score board, I type in Elaine Connor and when I press return it comes up as *Mega typist*.

Please can you tell me why this happens and if there is a way of getting round it.

Elaine Connor
Helsby

My guess is that you are unfortunate enough to have the same name as someone at Virgin when Sorcery + *was being written. This type of hidden message occurs quite frequently and aren't always as complimentary as this one. I suggest you type a different name into the score table, like EC, E Connor or Elaine.*

Disk piracy

Having written to you in the past about prices of disk based software I am loath to write again, but write I must. At this moment in time I can think of only 3 software houses that are charging anything like reasonable prices for their disk based games. Amsoft, Durrell and Players (it seems the only budget software available on disk).

Many companies charge as much as £6 more for the disk version of a game and yet 3" disks are available to trade for £2 or less. I know they say that discs have to be protected, hence more programing time, but when the disk version costs half as much again as the tape version of a game, does it mean they spent the equivalent in time protecting the disk? I think not.

The latest in protection schemes is the "Black Box Beater", for those of you who don't know, a "Black Box" is a term becoming widely known amongst a certain bunch of dog loving hackers for back-up utilities such as Imager, Multiface II etc. Anyway, many new games coming on the market are being programed to look and see if such a device is present and to shut down the program if one is detected.

When you take into account the fact that some of these particular games are not even available on disk, this need to protect software seems to be becoming paranoiac.

Mr M Lawrence
Bury St Edmunds

I think you're rather hard on the software houses and their protection systems. They have every right to prevent their copyrighted product from being pirated.

However, if they won't provide reasonably priced disk software or the ability to transfer a program on to disk, then I can't say I'm surprised at the publics desire for "black boxes." This issue will never go away and it always comes down to individual responsibility — if you have pirated software or been an accessory to it, then you're helping to kill this industry and doing yourself no favours in the long run.

On That subject we've also received the following letter...

I don't think your magazine shows much concern for the software industry.

You give raving reviews of copying and hacking programs and you allow these programs to be advertised. You even encourage people to hack into protection mechanisms.

Lets be honest — the people I know who, buy disk-copying programs not primarily for back-ups of their own programs (I have never had a disk fail). They want to copy programs from friends and from libraries.

I think you are two-faced saying on the surface you don't approve of copyright infringement, yet you publish adverts for several copying devices.

If a disk is difficult to copy it's because the software house deliberately wishes the disk to be uncopyable, and would supply a replacement in the unlikely case of failure. Do you really think you are being constructive, helping readers to "break-in" and copy?

As a programmer myself I have 100% respect for the honest programmers and software houses trying to protect their ideas from hackers and pirates. Every year the copying programs get more versatile — and now it seems there is no room left whatsoever for an honest, hard-working programmer to copy-protect his disks.

In your influential position you could take a much firmer stand in defending the rights of software houses rather than encouraging your average reader (schoolboy?) to spend his time finding ways to copy protected disks.

For heaven's sake Britain has enough problems. Now your magazine is helping foreign companies to break into British software.

Bob MacKenzie
Montrose

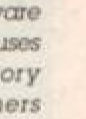
I'm glad you've never had a disk fail, because I have — several times — and it's extremely annoying. Most hacking programs have many potential uses including pirating, retrieving important lost files from failed disks, or for creating and examining your own programs.

The piracy question over tape to disk transfers cannot be resolved until tape based software disappears, or the software houses come up with a satisfactory solution to the consumers dilemma, as mentioned in the previous reply.

Your point about honest, hard working programmers and software houses is another problem. Quite frequently games are released which are quite simply terrible. People buy them and feel ripped-off. The natural human emotion is that if they're being ripped-off, why shouldn't they return the compliment. In the end it's totally unproductive but it is a two way street and you can't just ignore it.

As for taking a stand, we're here to protect everyone's rights, both the consumer and the software house.

I'll let the rest of the readers decide if they care for being described as schoolboys rather than CPC owners. As for your last point, I'm afraid it leaves me baffled.



Resetting wind

I recently bought the disk version of *Passengers on the Wind* through your mail order service, but have come across a problem. When coming to a dead end in the storyline, the only way I can continue playing the game is to switch off and then on and re-load.

Pressing the Escape key to

restart the episode, as mentioned in the manual, has no effect. This makes playing the game very annoying and is wearing out the on/off switch on my 6128!

Please could you confirm if this is likely to be a fault on the disk, in which case I will return it to you for a replacement.

Val Haynes
Leytonstone

There should be no problem with the disk. Pressing the escape key does reset the story, but it doesn't redraw the screen. Therefore if you start investigating the scenery and characters again, you should find they have gone back to the start of the story.

Snappy buddy

Just a few short and snappy comments. Can you, or some kind buddy, supply a list of games which are suitable for the 464 with add-on DK'Tronics 64K memory? Also any of these in the pipe-line?

Can you, or the same kind buddy, inform me from what source/sources I can obtain a comprehensive list of games available for the 464 (Both ancient and modern.)

Can you, or the same kind buddy, supply a list of good air/sea/land simulations for the 464?

Names and addresses of computer firms are very sparse in your jolly little magazine. How about publishing (in very small print if necessary) these details so that the poor old Amstradder knows where to write to when you review games for instance.

How about a corner of your magazine to which we can write with our problems, in return for a small fee? I am beset with many such small problems but where do we go to find the answer? I don't expect you chaps to do the job but surely there is some bright spark or sparks who could ferret the info out?

Robert Lamb
Cottingham

The lists are a time consuming problem, the addresses are always supplied with serious software, and the problems are handled in Problem Attic where you just have to take your chance on being included — we do try to help everyone.

Helpline outrage

Look here...shouldn't you be taking a more responsible attitude about software piracy. You say that you don't condone it but on the other hand you print the names and



addresses of potential software copiers.

I contacted someone from your Helpline list about help in a game and shortly afterwards received a letter, blatantly asking me if I wanted to swap copies with them.

I know the Helpline list takes up a whole page, but shouldn't you be doing your bit to help stop this increasing problem.

Simon Andrews
Gosport

Anyone found using the Helpline for this sort of thing will be removed immediately. We don't condone piracy and if you have evidence of piracy, we will act upon it. Helpline is there for people having problems, not for people wanting to rip-off software. If there is evidence of widespread misuse it would have to be withdrawn.

Video loot

After having found fame and fortune in Hot Tips issue 24 I have had yet another brainstorm.

How about producing certain issues of AA on video. Shops such as Boots and WH Smith's both demonstrate new software on video, but if AA produced maybe a "once yearly" video Magazine.... well?? Just think of the merchandising — there's a lot of loot tied up in the Amstrad Action Logo!

Big Al
Solihull

Blew a fuse

I wish to complain about the Cheat Mode in the magazine this week. I copied out the cheat mode for a game called *Jailbreak*. After every line I doubled checked that it was the same as the magazine, then when it had loaded it nearly blew the fuse, but I turned it off just in time and now that game will not load on the same side that the incident occurred.

Stuart Walsh
Watford

It's impossible that the poke could have affected your tape because it doesn't try to record anything on it. Tape pokes will never affect the tape itself and where a disk poke writes to the game disk we always state that fact and advise you to use caution. Your problem must have been pure coincidence.

Cheated out of a book

I am new in Arnold land and only have your last issue, so I sent away for the Cheat Mode book, but found that supplies had run out. Like any eager games player would be, I was absolutely devastated.

Having just recovered enough from this news to write this letter, I ask my fellow readers who have put in all the pokes or have a guilty conscience about cheating, to sell me a copy. If so please contact me either by phone or post.

Paul Chambers
47 Stone Barton Close
Plympton
Plymouth
Devon PL7 4LW
Tel: (0752) 336432

Cricket down-under

I am writing to you to find out if there are any programs specifically designed for the purposes of collecting, storing and printing cricket statistics. The type of program I am looking for would contain game results and figures, also it would contain individual career records etc..

If there are any such programs could you forward a brief outline of the program and any other relevant information to me as soon as possible. Would you include ordering codes if they are necessary.

The computer I own is an Amstrad 664, with an Epson LX-800 printer connected.

Russell Potter
Victoria
Australia

We aren't aware of such a program, but if anyone is, perhaps they'd like to send us the details so that we can print them for everyones benefit. You could even write one yourself and we'll print it as a Type-In.

Tenth time lucky

Please, please, please, print my letter as I have typed 10 times before to get it printed. Could you please tell me if *Out Run* and *Police Quest* will be made on the Amstrad 464 cassette, if so could you tell me when they will be released. I think you mag is brill.

Paul O'Hare
St Helens

Out Run is being converted and should be running out before Christmas. I'm not aware of Police Quest being converted though.

Optical type-ins

Is there an Optical Character Recognition System for the Amstrad? This system would be handy for programs that need lots of DATA lines typed in. Or maybe the listing could be represented in bar-code form in the magazine and the scanner could be used to "type-in" the program.

Jonathan Mc Brien
Enniskillen

It's an excellent idea, but at present we're not aware of any system that will do it for the CPC's.

Group on the move

I am writing to inform you of the change of address of the user group that used to occupy:

20 Palmerston Gardens
Ranelagh
Dublin
Eire

Has been changed to:

46 Templeogue Wood
Dublin 12
Eire

Please ask all readers who have written to 20 Palmerston Gardens in the past month (*make that two due to our deadlines — ed*)to write to the above address, thank you

Mihail D Evans

Big League trouble

I recently purchased Big League Soccer II from yourselves. Although the game is great fun, I cannot re-load a previously saved game. Can you help?

Adrian Swan
Orpington

Many people have had this problem. The fault is in the game's instructions. You don't need to remove the game disk at any stage. Just put the write-protect tab off and leave the game disk in the drive when saving. It won't harm the game.



Helpline

Where eager Amstrad experts volunteer aid to fellow readers having problems

If you too feel helpful, just send us your name, address, phone number (say so if you don't want it to be printed) and subject on which you want to help. Please write on a postcard or the back of a stuck-down envelope to simplify administration here in the office. Send to: **Helpline, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ.** If you are asking for help, make direct contact with the appropriate Helpliner - don't pester your usually-patient (but pressed) editor. By post, you must include a self-addressed, stamped envelope for the reply - otherwise you won't get one. And if you telephone, stick to socially acceptable hours!

If you've read the Reaction pages you'll know there's been a problem with software pirates using it. If this sort of thing occurs then the culprit will be removed. If there's evidence of a major problem then the column will have to stop entirely. If you want Helpline to continue, then help us keep it clean by removing any suggestion of piracy. 'Nuff said.

On another point, the lists of games you're sending in are getting horribly long. I don't want to stop them, but in future you'll be restricted to a maximum four lines each (not including the name and address). Those currently appearing who are over that limit should send in an amended list unless they're happy for me to shorten it for them.

Gauntlet, Aliens, Hacker 1, Green Beret, Short Circuit, Lightforce, Knight-tyme, Zub, Xoel, Bomb Jack 1, Apprentice, Thrust, Saboteur, 3D Boxing (Amsoft), Kane, Oh Mummy. Good at programs that give lists of things, eg telephone numbers, games, stocks - 464
Abdul ("Billy") Qureshi, 16 Truggers, Handcross, Haywards Heath, W Sussex, RH17 6DQ ☎ (0444) 40 0548

Amaurote, Kane, Hyperbowl, Turbo Esprit, Speed King, Starstrike II, Yie-ar Kung Fu, Thrust 1, Tomahawk, Druid, Batman, Knight Tyme, Thanatos, Harvey Headbanger, Paperboy, Gauntlet, Arkanoid, Lightforce, Trailblazer, F1 simulator, Way of the Exploding Fist
Jason Burns, 212 Victoria Rd, Higher St Budeaux, Plymouth, PL5 2DH

Basic, machine-code, hardware, programming roms. Peripherals available for use: printers, video digitizers, rom blowers, Multifaces
Mark Spencer, SIG Enterprises, room 2, 101 Oxspring Bank, Sheffield, S5 8NR ☎ (0742) 31 4053

Protext, Prospell, Utopia, roms, Basic, DMP 2000 printer: can supply screendumps of games or programs
Andrew Perry, 5 Uplowman Road, Tiverton, Devon, EX16 4LU ☎ (0884) 25 3414

Mini Office 2, Melbourne Draw, Music System, tape-to-tape, DMP 2000, Grand Prix Simulator, Chronos, Starglider, Yie-ar Kung Fu, Colony, Destructo, Radzone, Kane, Dynamite Dan, Rocky Horror Show - and many other games, software companies' addresses and general help on the 464
Helen Saunders, 14 Elm Ave, Beeston, Nottingham, NG90 1BU

any problems or tips (founded German Computer Service two years ago) including CPM, transferring programs from other computers, hacking, making programs compatible over all CPCs, pokes, Basic errors and problems, Hacker 1, Cauldron 1 and 2, Theatre Europe, Bruce Lee, Thanatos
Kai Herthneck, Ostracherstr. 4, 7000 Stuttgart 80, W Germany ☎ (+711) 72 3357

Feud, Jack the Nipper, Knight Tyme, Message from Andromeda, Revolution, Street Hawk, Saboteur, Starstrike II, Thrust II, 180
Paul Selvidge, 15 Whitcombe Close, Lordswood, Chatham, Kent, ME5 8RL ☎ (0634) 62978 except Sundays

Batman, Druid (use map locations from AA maps), Head over Heels, Batman, Druid, Ralli II, Green Beret, DT's Decathlon, Lightforce, Yie-ar Kung Fu, Who Dares Wins II, Bruce Lee, Ghosts'n'Goblins, Chuckie Egg, Chronos, Moon Cresta, Mindshadow
Darren Roole, Cathryn Wheel House, 43 High Street, Manea, Cambs, PE15 0JD

Get Dexter, Robin Hood, Terra Cognita, Star Firebirds, Trailblazer, Fighting Warrior, Druid, Beachhead, Tempest, Ghosts'n'Goblins, Dynamite Dan II, Match Day, Knight Lore, Dragon's Gold, Thrust, Scooby Doo, Avenger, Bruce Lee, Match Point, Starglider, Classic Axiens, Green Beret, Frank Bruno's Boxing, Killapede, Who Dares Wins II, Sorcery, Seabase Delta, Revolution, Thing on a Spring, Starstrike II, Bounder, Splat, Xeno, World Series Baseball, Defend or Die, Manic Miner, Pingpong, Football Manager, Last V8, 180, The Apprentice, Finders Keepers, Pipeline II, Shockway Rider, Locomotion, Zub, Kane, Conquest, Knight Tyme, Radzone, Dynamite Dan, Nick Faldo's Golf, Everyone's a Wally
John Lawless jnr, 75 Leix Rd, Cabra, Dublin 7

Amaurote, Feud, Sorcery, Knight Tyme, Spellbound, Gauntlet, Space Harrier, Ikari Warriors, Ghosts'n'Goblins, Bombjack 1, Commando and all Elite games, Batman, Frankie, Gilian's Gold, most Ocean games, Gunfright, Alien 8, Thrust 1, Flyspy, Molecule Man, Caves of Doom, Spindizzy. Adventures: Hobbit, Jewels of Babylon, Worm in Paradise. Has typed in all the type-ins
Frankie, 103 Strathaven Road, Lesmahagow, Lanarkshire, ML11 0DN

Soccer Boss, Starquake, Thrust, Rebelstar, Ikari Warrior, Hyperbowl, Football Manager, Feud, Harrier Attack, Kane, Radzone, Ghouls, Bruce Lee, Manic Miner, Star Commando, Bump Set Spike, World Series Baseball, Raid, Don't Panic, Grand Prix Simulator, Hunter Killer, Fighter Pilot
Craig Thomson ☎ Motherwell, Scotland (0698) 51177

Machine code, Basic, parallaxing udg's, hacking, almost anything else
Mathew Middlecott, 168 Fernhill, Harlow, Essex, CM18 7LF. tel (0279) 33269

Solving bugs in Basic and most machine code programs. Enclose listing + description of program + description of problem) If possible enclose cassette with program on 464 only. If machine code enclose assembler listing
Paul Jones, 78 Fitzwilliam Street, Swinton, Rotherham, S.Yorkshire, S64 8RW

Converting programs for the Vortex disk drive. Simple machine code. Hacking. CP/M programs & utilities. A whole bunch of public domain programs.
Mark de Bont, de Foes 15, 5581 AP, Waalre, Holland, tel (04904) 13963

Radzone, Ghosts and Goblins, Knight Tyme, Dragons Lair, Green Beret, Gauntlet, Feud, Starquake (codes), Bounder, Boggit
David Brooke, 8 Birkby Grove, Bilton Grange, Hull, HU9 4PZ

Elite, Yie Ar Kung Fu, Commando, E.Freddy, Space Harrier, Football Manager
M.Levy, "Brecon", Woodside Lane, Finchley, London, NI2 8RG. tel (01) 445 0220 (weekends (01) 209 1006)

Knight Tyme, Spellbound, machine code, Basic, Word Perfect, Melbourne Draw, GAC, pokes, maps, hacking, DMP 2000 problems, games development using GAC, word-processing, graphics (screen dumps), all CPC games from Space Invaders to Gauntlet. Can also print program listings for a 40p postal order. How to do pokes and problems using modems. (I have a Voyager 7)
Guy Sicka, 78 Chesterfield Road, High Barnet, Herts, EN5 2RF. tel (01) 441 5612

I am interested by programming in Basic and machine code. I have many games and utilities for the CPC's.
Jean-Philippe Battu, 48 Chemin de Rambouillet, 78450 Villepreux, France

Basic programming, some machine code
Paul Bower, Elm Gable, Hermitage, Newbury, Berks. RG16 9SA. tel (0635) 20089

Spellbound, Knight Tyme, Kobyashi Naru, Sorcery, Get Dexter, Thing on a Spring, Starquake, Cauldron 2, Sacred Armour of Antiriad, Batman (using AA map), Zub
Graeme MacDonald, 13 Shillinghill, Alness, Ross-shire, Scotland, IV17 0SY

Tasword 6128/Tas-spell 464 & 6128, Tasprint, Tascopy, Basic programming, Mastertile III, Locksmith+, Masterdisc, Epson LX printers, CPM and help on then game Elite
Oystein Kjaereng, Torvymrv.42, 3170 Sem, Norway

Feud, BMX Simulator, Equinox, Who Dares Winds 2, Frank Brune's Boxing, Shogun, Green Beret
Inigo Dunkley, 62 Rainbow Drive, Melling, Liverpool, L31 1BZ, Merseyside. tel (051) 547 2714

Basic, machine code, Laser Genius, tape loading, disk loading, firmware, graphics, sound, hints, pokes, mapping, Word Perfect, Sorcery+, Transmat, Oddjob, Warlord, Kung Fu Master, Bruce Lee, Bounder, Gunfright, Pip, will print listings for 20p
Steven Lawson, Plot 77, Meir Park, Staffordshire, ST1 6HQ.

Basic programming, machine code programming, firmware calls, Amsdos calls + accessing them, adding second drives (3in + 5.25in), tape loading problems, multiface two, printer problems.
Kevin Bryant, Jessamine Cottage, Chapel Lane, Ashford Hill, Newbury, Berks, RG15 8BE. tel Tadley 71792

GAC adventure writing and problems. Also conversions to other formats undertaken for published GAC authors by fellow established author
C.Sharp, 4 Osprey Gdns, Sheffield, S2 5GE, S.Yorks

Bombjack, Barry Mcguigans boxing, Green Beret, Forest at Worlds End, Doomdarks Revenge, Lords of Midnight, Thrust, Barbarian, Kung Fu Master, Elite, Hunchback, Bump Set Spike, Feud, Everyone's a Wally, Who Dares Wins 2, Grand Prix Simulator, Kane, Hyperbowl, Ikari Warriers, Fist, Yie Ar Kung Fu, Bruce Lee, Jack the Nipper, Fourth Protocol (part one only), Knight Tyme, Ghost n' Goblins
Paul Crich, 33 Hills Road, Strathaven, Lanarkshire, ML10 6LQ. tel (0357) 29606

Gauntlet, Knight Tyme, Green Beret, Spell Bound, Bombjack, Stormbringer, Bombjack II, Kane, Yie Ar Kung Fu, Amaurote, Zub, Grand Prix Simulator, Dynamite Dan, Starquake, Harrier Attack, Bruce Lee, DT's Decathlon, Who Dares Wins 2, Pipeline 2, Harvey Headbanger, Back to Reality, Equinox, Sacred Armour of Antiriad, 180, Matchday, Knight Lore, Bounder, Ping Pong, Space Harrier, Exolon, Ninja, Ninja Master, Mag Max, Legend of Kage, Ball Crazy, Desert Fox, Boulder Dash
David Howlett, 53 St Marys Avenue, Alverstoke, Gosport, Hants, PO12 2HU

An extremely large number of games which is too long to list here so telephone him to find out
Craig Thomson. tel (0698) 51177

Raid, 180, Star Raiders II, Beach Head II, Death Wake, Sir Lancelot, Footballer of the Year, Nonteraqueous
Michael Dickinson, 281 Tyldesley Road, Atherton, M29 9AL

Hints, tips, pokes on Pulsator, Run for Gold, Amaurote, Short Circuit, Paperboy, Ikari Warriors, Arkanoid, Rebelstar, Thrust, Exolon, Renegade, Speed King, Get Dexter, Green Beret, Raid
Iain McKinnon, 37 Loch Laidon Street, Sandyhills Estate, Glasgow, G32 9HR

Batman, Ikari Warriors, Jack the Nipper, Rambo
Si Carter, 6 Laurel Grove, Hoole, Chester, CH2 3HU

Message from Andromeda, Terra Cognita, Thrust, Mr Freeze, Spellbound
Darren Jackson, 85 Fitzherbert St, Warrington, Cheshire, WA2 7PN

writing CPM software, GSX, BDOS calls, CPM assemblers, all aspects of CPM, Amstrad basic, Logo 2, Logo 3, Algol-M, Microsoft basic, Basic E, 8080 assembly language, Z80 assembly language and machine code, user software patches for users own use, protection of data and programs, research development and programming of new games, new languages, graphics from basic CPM and machine code, translating program between languages and any two micros, choosing cassette decks for 664 and 6128, fault finding in tape decks joysticks disk drives and computers (don't send equipment just details), most other makes of computer including BBC Electron C64 and 380z
Cormac McGaughey, 1 Glenariff Rd, Cushendall, Co Antrim, BT44 0QY

AMSCENE

Monthly update on what's new on the CPC scene

Stop press, it's Stop Press

After months of delay the debugged, rebadged, repackaged, rewritten version of *AMX Pagemaker* is ready. Desktop publishing is viable once more on the CPC. Advanced Memory Systems is desperately trying to shake off the bad publicity surrounding the original bug-ridden package.

AMS decided to keep the project going. Garry Allen, programmer of the original, was called in to fix the bugs and add routines previously missed out. After a debugging session, involving Alex, Garry and AMS man John Simpson, the product was ready. During this time there was a problem over the use of the title *Pagemaker*, already being used by Aldus, authors of the Apple Macintosh *Pagemaker* and more recently *PC Pagemaker*. To avoid a court case AMS rebadged their wares *Stop Press*. Consequently new packaging and a new manual had to be designed. These are all finished.

John Simpson said, "well over 200 packages have been sent to people waiting for the upgrade and others are going out all the time". Now's the time to contact AMS if you haven't got version 2.00. We've had a quick look and couldn't spot any bugs. Watch out for a review of the new package next month.

Extra Extra, which has also been on the board for some time, has been completed. Over 25 new fonts and 300k of clip art are present on a disk costing £24.99.

Stop Press is currently available at £49.99 (£79.99 with the new MK III mouse). Upgrades from the original *Pagemaker* are free — just send the original disk and manual to Advanced Memory Systems 166–170 Wilderspool Causeway, Warrington, WA4 6QA. Or telephone them on 0925 413501 for further details.



Ram Expansion

Ram Electronics own the DK'tronics brand name and the rights to manufacture its goods. After a story appeard in a trade paper, stating that a peripheral manufacturer was up for sale, rumours pointed to DK'tronics.

Richard Sekula, Ram's sales director, couldn't give us a reason for DK's sudden departure. But, as he put it, "we are delighted at having our product range doubled overnight." When asked what figure was involved in the purchase of the name and products Richard, unsurprisingly, couldn't comment.

We've tried to contact DK for more information but have been unable to get hold of anyone.

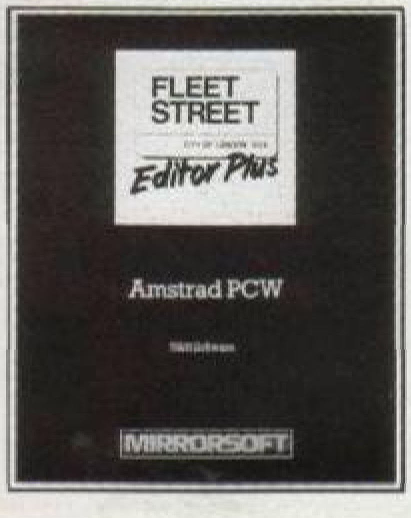
Ram hope to be able to supply all DK stock within the next few weeks. "We will be adding to theDK'tronic label, but not before Christmas" said Richard. Queries and orders should be directed to Ram on 0252 850085.

Sound sense from Siren

Ultrasound is Siren Software's latest release. Boasting speech generation, a sound digitizer and a program allowing you to turn your Amstrad into an electronic keyboard, it sells at £12.99 on disk only. *Ultrasound* is the most recent in a line of licensed programs from across the channel in France. If the others were anything to go by then watch out for it. Dial 061 228 1831 to pester Siren.

Stop Press, it's Fleet Street Editor

The long overdue *Fleet Street Editor*, Mirrorsoft's answer to *Stop Press*, is due to make an appearance at the Personal Computer World show. This story is being written prior to the show, so going on past experiences we don't guarantee it will be there. The desktop publishing package was first advertised over a year ago and Mirrorsoft has been quiet about its disappearance until now. Pat Bitton at mirrorsoft explained: "The programmers ran into difficulties when trying to combine text and graphics on screen. This has since been resolved. We simply couldn't drop the package as we have a tie-in with an overseas software house."



A preview of Fleet Street Editor will be shown at the PCW. Apparently it works on a 6128 or 464 with extra memory and disk drive. "At £49.95," enthused Pat, "it should give *Stop Press* a run for its money." Pat couldn't give a precise date for the re-launch, but hopes it will hit the streets around October. Interested? Phone Mirrorsoft on 01 377 4645.

Shoot it up

For a new look in joysticks try the Terminator. This odd looking beast is distributed by Robtek (01 847 4457) at a price of £19.95. Pull the pin and watch the enemy disperse.

Rapid base

Users of Tandata's new V22/V22bis modem, the Tm722, have the opportunity of logging on to a special 2400-baud test database

Phone 0684 892424 and set your software to 7 bit, even parity, 1 stop bit to receive and transmit data with the host modem. Entry password is "Tandata". To log-off hit Ctrl C followed with BYE. The Tm722 modem works at 2400 or 1200 baud. It can auto-sense the speed of the host modem and adjust itself accordingly. Price is £499. Tandata Communications can be reached on 0684 892421.

AA Competition Winner

The winner of the AA Competition in the September issue of AA is Karl Whitelam of South Humberside. He will soon be receiving his prize of the AA memorabilia.

The answers were:

1) The editor of the first issue of AA was Pete Connor.

2) The first Mastergame was *Way of the Exploding Fist.*

3) The games on the first cover cassette were *Kung Fu* and *Number 1.*

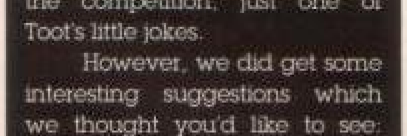
4) The highest-ever Mastergame rating of 96% was given to *Spindizzy.*

5) The section where readers gave their opinions on games was called Voice of the People.

6) This question was not part of the competition, just one of Toot's little jokes.

However, we did get some interesting suggestions which we thought you'd like to see: Temperamental, Overrated, Overweight Tadpole from David White, Trevor and Ollie's 'Orrible Thing from Michael Stirling, The Origin Of Trouble from Tom Warin, Two-year Old Obnoxious Trouble-maker from AJ Byford, Totally Out Of Taste from "Frankie", and Terror Of Our Typesetters from Paul Holdaway. Perhaps the best was, The Outrageously Obvious Tie-breaker from Ronan McKenna, which just goes to prove it wasn't. The winner was drawn randomly from all those that got the first five questions right. I'm feeling generous, so a free game is on its way to all those people.

The closest to the truth was Trevor's Only Official Toot from Janson Ragon, but in fact it stands for

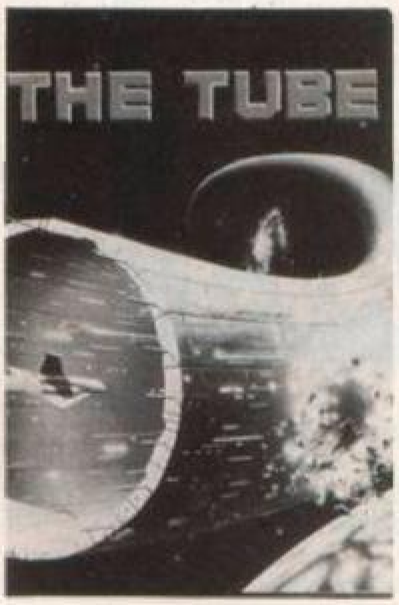


Pacman strikes back

Argus Press Software were due to show three new games at the PCW show, *The Tube, Pacland* and the *Hunt for Red October. Pacland* is an officially licensed version of the Namco arcade game, in which you are again up against the meanies. This time you have your whole family with you. Power pills and floating fruit are still present and, with the help of magic shoes, you may be able to get to fairyland. It is due for release late this year.

The Hunt for Red October is based on a Tom Clancy book and has you trying to find a Russian submarine. The crew want to defect to the USA in the latest Russian submarine the "Red October".

The Tube is another arcade conversion. Apparently it's going to keep "joystick wobblers" happy. You know who you are, no names, no pack drill.



Board games galore

CDS are launching two new board games. They're *Mah Jong* and *Casino Roulette. Mah Jong* is an ancient Chinese strategy game played with tiles. In this micro version you can play either against the computer or other players.

Casino Roulette is the classic gambling game where you bet on where the ball will land in a spinning wheel. If you do go bankrupt then you'll only lose computer money rather than your own, you just have to shell that out on the game.

Remember when you were young and you received a compendium of games at Christmas. Now Gremlin can supply some of those games for you in their own compendium. Your hosts are the Wink family and you can play games like *Snakes and Hazards, Ludo* and *Bingo. Snakes and Hazards* has snakes wriggling around the board, let's hope they're not too realistic. The compilation will cost you £9.99 on tape and £14.99 on disk.

Eye for an eye

Software houses experiment with a lot of gimmicks to try to hype their games, this month was no exception. We get a card saying "Kelly's Eye No.1", and bearing no other information. We contained our curiosity and the next day got another one reading "Got the Eye dea". Absolutely rivetted with excitement we awaited the next days post. Sure enough there was another one.

Enough of this drollery, the purpose behind this nonsense was to alert us to the imminent arrival of the game *Eye*. It's a game for one to four players, according to the packaging they can be of ages 7 to 107. It's being marketed in the same yuppie manner as Trivial Pursuit and Kensington, but not having played the board game we can't tell you much else about it.

It's being released by Endurance Games in some very nifty packaging. Prepare yourselves for an awful lot of silly eye puns in the months ahead.



Sport for all

Gremlin are releasing a sporting game in the mould of all the sports simulations that have gone before. This version is different in that it features unusual sports such as sack racing, boot throwing, running up walls and pillow fighting. You are guided through the game by a parrot (I wonder if it's a Norwegian Blue). Priced at £9.99 on cassette and £14.99 on disk *Alternative World Games* can be played by up to eight players.

Tour de Force is a Grand Prix cycling simulation in which you take part in a five stage race through five different countries. As soon as the starting gun is fired the race for the yellow jersey is on. The other riders are out to stop you and will stop at nothing to win. It will cost you £9.99 on tape and £14.99 on disk.

Ever wanted to be a detective? Now you can become Walt Disney's *Basil the Great Mouse Detective.* Dr Dawson, Basil's good friend, has been kidnapped (or is that mousenapped) by the dastardly Rattigan. Basil will deduct his way onto your monitor screens in October at £9.99 on tape and £14.99 on disk.

More sport

Ocean are to release a bumper package of sporting software called *Game Set & Match.* The titles are all re-releases and include: *Basketball, Barry Mcguigan's Boxing, Pool, Squash, Hypersports, Tennis, Baseball, Ping Pong, Daley Thompson's Supertest, Super Soccer* and *Matchpoint.* The pack will cost £12.95 on four tapes and £17.95 on two disks.

Hewson go cheap

Hewson are launching a new label called Rack-It. It's a budget label and will be distributed by Mastertronic. Games released will include, *Draughts Genius* for those requiring intellectual stimulation, *Rex Harde* which is an arcade adventure, shoot-em-ups like *Powerama,* demon bashers in *Anarchy* and *Herobotix.* The first game to appear on the CPC will be *Uridium,* due out in late October. The games will sell for £2.99 on cassette.

Here in a Flash

Mastertronic's latest releases are *Motos* and *Flash Gordon* and should be on the streets now. *Motos* has you manoeuvering your ship around a solar base, where you are trying to bump the aliens off the screen. The aliens object to this understandably and try to return the compliment. In *Flash Gordon* you have 24 hours to save



the world from the evil Ming. You play Flash in his attempts to destroy Ming in this combat type game. Both are in the MAD range and will cost you £2.99 on cassette.

On the Ricochet label there are four re-releases, all of which are old Ultimate games and these are *Knight Lore*, *Alien 8*, *Sabrewulf* and *Knightshade*. All four of these will cost you £1.99 each and should be out now.

On the Americana label there are two more re-releases. These are *Beach Head II* and *Xevious*. Both games should be out now and will cost you £2.99.

A tall story

Electronic Arts UK subsidiary are to release several games in the coming months. *The Bard's Tale* is a fantasy role-playing adventure, set in and around the city of Skara Brae. It will be out in October on disk and cost you £14.95. The cassette version will follow in November and cost £8.95.

Aliens have invaded Earth and have set up base in the Arctic where they are converting the atmosphere to something more breathable for them, but deadly to humans. *Arctic Fox* is a super-tank specifically designed for polar combat. You have to penetrate the forcefield protecting the aliens. The tank has a heads up, 3D display through which you view the Arctic landscape. The game is due out now and will cost you £8.95 on tape and £14.95 on disk.



PHM Pegasus gives you control of a highly manoeuvrable hydrofoil in which you take on eight different combat assignments. Armed with missiles you must seek and destroy enemy vessels as you travel around the world's oceans. Electronic Arts teamed up with Lucasfilm for this game, which is due for release in October. It will cost £8.95 on tape and £14.95 on disk.

Unscrupulous

The board game *Scruples* is now being converted to the Amstrad by Leisure Genius, famous for their other board games of *Scrabble*, *Cluedo* and *Monopoly*. The game features 230 questions and up to ten people can play at one time. The game is due out in November.

Martial arts rodent

CRL are to unleash a fearless martial arts expert in a game called *Ninja Hamster*. In it you will find your arch enemies: Sinister Rat, the Lizard of Death and other adversaries. You can bite, kick and punch your way through your opponents in October. Tape will cost you £8.95 and disk will cost £14.95.

Defend Ronnie

Bug Byte are to re-release *Defcom* as a budget game. In it you must regain control of the Earths SDI satellite defence system which has been captured by invading aliens. The game will be out soon and will cost you £2.99.

The Things are coming

Firebird are to re-release another game in their £2.99 range later this year. *Halls of the Things* was originally released on a disk with the title of *Working Backwards*. *Halls of the Things* has you wandering around a multi-level maze armed with sword, bow and magic. There are of course plenty of dungeon denizens to hamper your progress. It will cost you £2.99 when it arrives in November.

Bond winners

The judging for this one was tough, but in the end we plumped for the captions sent in by **Ray Renteurs** from Newton Aycliffe. His three captions were:

A. Oh christ! That's torn it, they've got crack Julian Lloyd Webber troops!

B. Now don't forget, that's three choc-ices, one wafer sandwich and a ninety nine.

C. He's fallen for Q's jet propelled commode. Now where's the blast-off button?

There were lots of other hilarious entries, but this was the one which overall managed to caption all three pictures well.

We can't print all the runners—up captions but here's a selection, followed by the list of twenty runners-up.

A. Good job you don't play the piano James.

No, we're not "Brahms and Liszt" in charge of a cello.

Wish we'd brought the double bass, then we could have given those two guys a lift.

Just smile at them darling, they'll think we're American tourists.

B. Hold this while I adjust my wig strap.

What do you mean smell it? If it isn't **** then why are you wearing a gas mask?

Take this money Bond and try to get me a hearing aid that fits.

OK Bond, I'll buy your pen-knife. Now cut this thin off my chin!

C. I can't get up! I'm stuck on bloody spike, this long!

That was great Mr Bond. Can we go on the big dipper now?

Is this your first time test driving a mini?

Are you sure this is a Habitat sofa-bed?

Runners-up: Kevin Pratt, York; Rhys Maddocks, Mansfield; CA Sharp, Sheffield; GJ Bostock, Urmston; Ron Brindley, Fife; John Kirwan, Bootle; Mark O'Connor, Birmingham; JP Hassell, Dover; David Williams, Mold; Malcolm Cunniffe, Kirkcaldy; Shaun Quirk, Southampton; Greg Egan, Stalybridge; Antony Morrey, Ruislip; Rankin Hamilton, Buxton; A Bernat, London W9; Ken Hartland, Hereford; Adrian Brownlow, Hucknall; Peter Daniels, Sheffield; Scott Bowie, Stirling; Anon, Rainham.

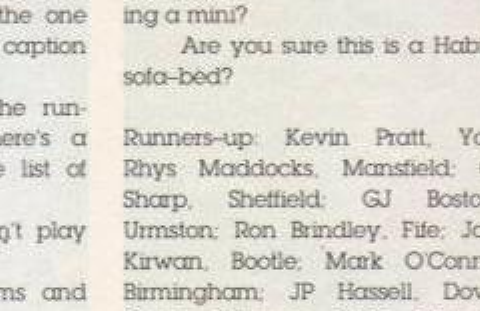
Waggling winner

Back in issue 22 we ran a story on a waggle test on the Konix Speedking Joystick. The results are through and the joystick lasted for 652 hours. At a rate of 450 wpm (waggles per minute) it endured 17,604,000 waggles. Maris Goert of Belgium has been presented with his £100 prize for being closest to predicting how long the joystick would last at 643 hours. A booby prize of a Speedking was awarded to an entrant who predicted 14 minutes and another Speedking went to the entrant who predicted 8 years.



Freescape

Driller should be available in soon and features Incentive's new landscape creating system, Freescape. The system boasts over 20,000 billion views of the lunar landscape. Your task is to release the dangerous gases beneath the Moon's surface and avoid the defence system which stands in your way. There are also weird alien mechanisms which allow access to other parts Moon. The game will cost £14.95 on cassette and £17.95 on disk.



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AA



Midi Music

The world of Midi is large but not necessarily complex. Richard Monteiro investigates musical possibilities.

At first sight your Amstrad's sound capabilities aren't exactly mouth-watering — a few beeps and squeaks which can amount to a reasonable, but not exactly ear-throbbing, tune. Add one box and an electronic instrument and the roof's the limit. You can plug in a synthesizer, digital guitar or electronic drum kit and open up a whole new world of lug-hole entertainment.

A computer is an ideal tool for controlling electronic instruments — indeed many professional musicians, such as Marillion, Dire Straits and Jean-Michel Jarre, use computers on stage to achieve special effects at the touch of a key. No longer do you need to play an instrument: a computer can do it effortlessly. And the CPC can do it better than most home micros.

Unlike the computing fraternity music makers opted for a standard, through which all electronic instruments could communicate. The "Musical Instrument Digital Interface" or MIDI, is in many ways similar to an RS232 interface: it can receive and send binary information.

Todays electronic musical instrument is similar to a simple computer — short on user-friendliness but powerful in the right departments (in this case in creating unique sounds). Professional musicians have had to turn to the computer in order to manipulate instruments and store compositions easily.

Your Amstrad can tune in to a multitude of Midi packages, comprising of interface and software, available from various third-party companies. Musical instruments are in no short supply either.

More on Midi

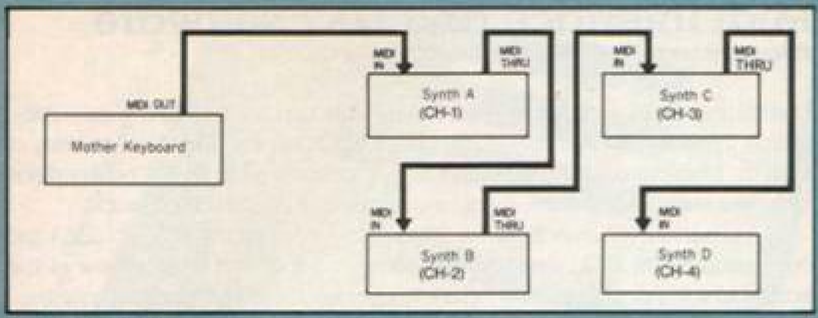
Six years ago Dave Scott of Sequential Circuits, makers of the Prophet range of synthesizers, proposed the Universal Synthesizer Interface. After lengthy discussion with Japanese manufacturing giants — Roland and Yamaha to name a couple — a much expanded format evolved. Midi was born.

Midi uses a binary language similar to RS232. Instruments are connected together via 5-pin DIN plugs. Each instrument has at least one, out of three possible, connections: Midi-in, Midi-out or Midi-thru. Midi-in receives data, Midi-out sends data and Midi-thru is for connecting more than one box-of-tricks together.

There are 128 note values (corresponding to a range of ten and a half octaves on a piano) available through Midi. Vibrato, wow and pitch-blend are some of the effects Midi can cope with. Computers are perfect for storing and editing data. This explains the link between man, music and micro.

Further information on Midi can be found in the following books: Midi Basics by Akira Otsuka and Akihiko Nakajima. It's a paperback published by Amsco at £7.95. ISBN 0 7119 0952 0. Midi for Musicians by Craig Anderton is another alternative. Published by Amsco it sells for £9.95. ISBN 0 7119 0822 2.





● Midi connections

Miditrack Performer

EMR, £129.85 for interface and software

Electromusic Research was the first to bring Midi to the Amstrad computer. An interface and software appeared in August last year. Since that time several companies have released packages of varying degrees of worth.

The *Miditrack Performer* software (on both disk and cassette in the same package) is normally sold with an interface for £129.85. It is possible to get the items individually, but one is useless without the other. *Performer* allows you to record music and play it back and alter it live.

Four DIN sockets are located at the back of the interface: Clock, Midi-in, Midi-out1, Midi-out2. You should be familiar with all the sockets bar Clock. This gives you the option of controlling the system via an external timing device, such as a rhythm unit or sequencer. As there are two Midi-out ports you can control two instruments. Further instruments may be connected via EMR's *Midilink* (£29.95).

Load the *Performer* software to treat yourself to a pleasing visual display. Functions are altered or selected by moving, and ultimately clicking, an arrow-like cursor over icons. The display is daunting to the beginner, but referring to the quick-screen-guide soon has you roving around rebelliously. Movement is achieved using a joystick or the cursor cluster.

Keeping track

The screen is split into two groups of icons: track setting to the left of the screen, before- and after-playing or recording options on the right.

You have eight tracks to play with which can be likened to tracks on a digital recording system. Each track stores information regarding the track state (whether is is on or off during playback), channel to which the data is sent (there are 16 possible Midi channels) and whether a track loops during playback. It also stores the control setting which determines what is stored while recording — store everything, velocity but not pressure or aftertouch, pressure but not velocity or neither pressure or velocity.

It is possible to edit tracks during realtime by selecting Punch-In from the track icon. Say you record a tune and inadvertently hit a bum note. By using Punch-In you can listen to your composition and hit the correct key before the offending note plays.

The right-hand group of icons give you a number of operating features — these cannot be accessed while recording or playing. Loading, saving, deleting and cataloguing of files is permissible. As are an army of handy options.

● Miditrack Performer in full view





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- Metronome gives you the choice of having a beat to playback or record to.
- Tempo (speed) of the recording or playback can be altered. Even in real time.
- A time signature can be set to enable correct bar counting by using Time Sig.
- Recorded tracks may be played back in a pre-determined order by selecting the powerful Arrange icon.

Price performer

EMR is offering Amstrad Action readers the *Miditrack Performer* at an amazing £99.85. A £30 discount if you phone Mike Beecher at EMR (on 0702 335747) and tell him you read about it here. This superb offer lasts for one month starting from the 8th of October. Don't miss out.

Incorporated in the *Miditrack Performer* package is everything the novice needs to get down to serious keyboard bashing. There is ample to interest the old-hack. You will find yourself using the Midi instrument rather than sitting in front of the computer clicking icons and wrenching a joystick. A package that would perform well on stage.

If the *Performer* does not meet your requirements then don't despair. EMR's upcoming products are bound to generate interest. Promised are the *Miditrack Composer*, *Notator*, *Editor* and *Toolkit*. Further information from Electromusic.

GOOD NEWS	BAD NEWS
■ User friendly front-end. ■ The best introduction to the world of Midi. ■ Simple to master.	■ Price is greater than other systems. ■ Limited to eight tracks.



● EMR's interface fits neatly into the CPC

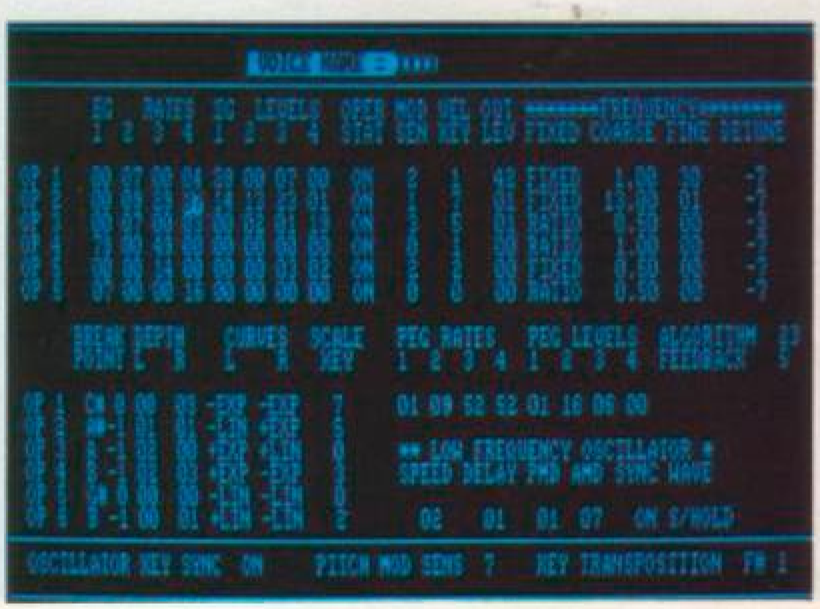
Midi Interface and DX7 software

Silicon Systems, £59.95 interface, £59.95 software

Continuing in its long line of hardware add-ons for the CPC computers, Silicon Systems has just introduced the Midi Interface. This box consists of Midi-in, Midi-out and a couple of LEDs to indicate data flow. The interface is useless without software — this is extra and is synthesizer specific.

Yamaha DX7 and Ensoniq ESQ1 software is ready. We couldn't get our hands on an ESQ1 synth for this issue, but look out for a review of the Editor (£74.95) and Sequencer (£59.95) packages in forthcoming months.

The DX7 software includes Data Dump and Editor facilities. A library of sounds is also included. Thirty-two unique sounds can be held in the DX7's buffer. The 32 sounds are collectively known as a bank. Silicon's software lets you send data banks to and from the Yamaha. Of course, single items of sound data can be manipulated. The reason for receiving and sending sound data is to store all the information on disk, and then load it back when required.



Synthesizer software

Following hot on the heels of the DX7 and ESQ1 software are editors and dump facilities for the Roland D50 (£59.95), Roland MT32 (£59.95), Casio CZ101 (£39.95) and Yamaha FB01 (£39.95). If you have a synth that isn't listed phone Silicon on 061 848 8959: they may be writing software for it.

The software comes with 16 banks of sounds. Having 500-plus individual sounds justifies the asking price alone. You can turn your synth into a brass band, grand piano, drum kit or even a helicopter — an astounding range of effects and sounds.

To edit a sound you can't simply choose one from a bank and enter the Editor. Instead the sound you wish to meddle with must be downloaded from the DX7 — a bind if the sound doesn't originate from the DX7 and must be sent there in the first place. However, once the sound is in the Editor, editing occurs in real time.

Six operators, which can affect each other in several ways, are used to define a sound on the Yamaha. These are open to attack in the Editor. It is best to alter existing sound data rather than starting from scratch: creating sounds is a complex ballgame. A graphical display of the operators can be called to view, but unfortunately can't be altered directly.

Silicon's DX7 software is a must if you have such a synth. True there is no other software for the CPC to compare it with, but it performs well, has a competent editor and supplies you with a wealth of new sounds. And is rapidly learnt as options are displayed at all times.

GOOD NEWS	BAD NEWS
■ Real time editing possible. ■ Simple yet powerful. ■ Over 500 new sounds to give your DX7.	■ Operator graphs can't be manipulated directly. ■ An unnecessary rigmarole required to edit a sound.



● Top of the range Cheetah Midi keyboard - the MK7VA

Music Machine

Ram Electronics, £49.95 tape, £59.95 disk

Issue 17 carried a full review of Ram's beat box — the only other alternative Midi device for the Amstrad. It's basically an interface with standard Midi ports. However, underneath hides a smattering of other intriguing facilities for the musician and enthusiast alike.

Six connections can be found at the back of the *Music Machine*. That's no bad thing. What is annoying is that none of them are labelled. This means you have to refer to the manual every time you wish to plug something in. Three Midi ports are present: Midi-in, Midi-out, Midi-thru. Headphone, microphone and audio-out sockets are similarly placed.



● Midi music from Music Machine

You may have guessed by now that the *Music Machine* is more than just another Midi interface. Indeed, it provides sound sampling, various drum beats, echo and even lets you compose and store compositions. Midi plays a small part in this package: any reference to its Midi capabilities are concealed at the back of the manual, and few pages are devoted to the subject.

The sampler and drum sounds are the most exciting aspects to the package. If you wish to sample your own voice or other noises then you'll have to lose the drum sounds (they are sampled). A mere 1.1 seconds of sampled sound can fit in memory. This isn't limiting if you realise that short words are spoken, on average, in a 20th of a second. Sample rate is fixed, which is disappointing.

By entering the drum or bar editor you can compose pieces of music — restricted to memory availability. All the usual editing facilities are provided. For example, the time signature, tempo, note values and so on can be altered.

If you have a Midi keyboard you may play a captured sound over the keyboard's full musical range. Composed tunes may be sent to the synth, but little else. You can't store, edit and then playback musical compositions using a Midi instrument. In fact the *Music Machine* is very limited in this department. Ram promised software for the Midi user. This has not appeared so far and there seems little chance that it will.

The *Music Machine* is not of much use to the Midi musician. You may have sampled sounds to play with, but not much use to the Midi user who wishes to edit or store keyboard compositions. Best for the home user who doesn't want to stray from the CPC's beeps and squeaks.

GOOD NEWS	BAD NEWS
■ Terrific sampled drum sounds. ■ Plenty of functions to keep you amused.	■ Impossible to store or edit Midi compositions. ■ Awkward to listen to drums and music simultaneously. ■ Of little use to the Midi user.

What instrument

You've got the interface and software, but have you the right instrument? Wading through the masses of them is hard going. So why not take a look at our suggestions? From budget to the business.

Cheetah have recently extended their MK range. Their cheapest is the Midi MK5II keyboard at £199.95. Fully polyphonic with 61 keys, pitch bend and octave shift. Top of the range is the £399.95 MK7VA. Boasts 7 octaves, velocity and pressure sensitive with pitch bend and modulation wheels. Even has three keyboard split points. At the astounding price of £159.95 Cheetah are offering the complete DP5 electronic drum kit.

Casio have a very full selection of keyboards just scraping the £200 barrier. Many high street electrical stores like Dixons have several keyboards in stock. Check them out. Casio have a couple of Midi guitars which look promising. In particular the 500 series which come in at £499.

A shoulder-strung instrument is on the way from Yamaha. The SHS10 keyboard is rumoured to hit the streets at around £149. Of course Yamaha are also makers of the hugely successful DX range — especially the DX7. You can pick one up for a cool £1000, but hunt around in music papers for the best bargains.

This is by no means an exhaustive look. It merely gives you a taste as to what is available. The Complete Guide to Synthesizers, Sequencers & Drum Machines by Dean Friedman serves as handy reference to purchasing an instrument. It offers price lists and illustrations. Published by Amsco at £9.95. ISBN 0 8256 2414 2.

Helping hand

Many thanks to Tony Jenkins from Glastonbury, Somerset, who helped us make the right connections and loaned us a Yamaha DX7 synthesizer. Tony has been working with Midi instruments and their computer counterparts since their conception. In his time he has worked with Nick "the fiddle" who played violin on the Rolling Stones album Goats Head Soup and, more recently, Steve Jolliffe formerly of Tangerine Dream.

Thanks also to Dave at the Bath Computer Shack for kindly letting us use the Casio CZ230S keyboard, that appears as part of our front cover.


● The Yamaha DX7 synthesizer

EMR ☎ 0702 335747
14 Mount Close, Wickford, Essex, SS11 8HG

RAM Electronics ☎ 0252 850085
Unit 16, Redfields Industrial Park, Redfield Lane, Church Crookham, Aldershot, Hants, GU13 0RE

Silicon Systems ☎ 061 848 8959
Trafford Technology Centre, 43 Elsinore Rd, Manchester, M16 0WG

Cheetah Marketing ☎ 0222 555525
Norbury House, Norbury Rd, Fairwater, Cardiff, CF5 3AS

WORDS WORK

How to get the most from your word-processor and printer

More tips, tricks and tactics. Also Steve Grand shares his knowledge of the *PenDown* word-processor, but first, printing from *Tasword*.

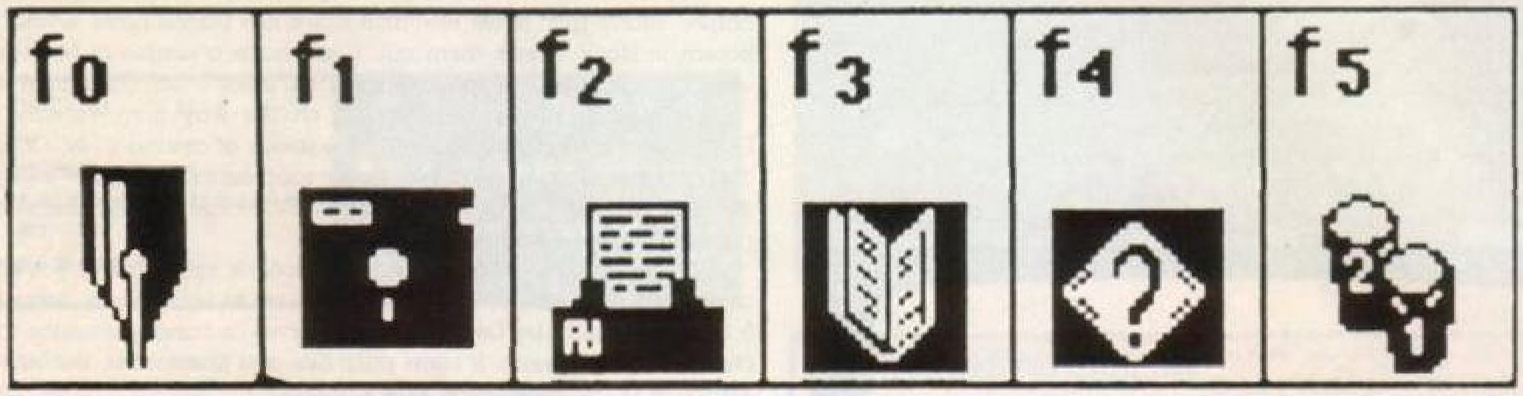
Printer commands

Tasword offers a variety of commands to alter the style in which text is sent to the printer. And there are others that help you organise the layout. Certain commands require a keypress (or two at most), others are reached by passing through sub-menus and further sub-menus.

Only a handful of one- or two-key commands exist. For example, you can opt to have a page break on screen. Handy, as you can judge what will appear on each printed page. Header and footer text can be viewed and altered using control key sequences, but that's it. All other functions which are ultimately directed to the printer are accessed via menus.

Codes for the printer are inserted into a document by first hitting control space and then selecting the required function. There are 4Ø redefinable printer codes which can be held on keys a to t and A to T. These codes don't get printed. They are simply commands for the printer to turn special text style effects on and off. The method Tasman has adopted for switching on and off an affect, is to use the upper case letter for on, and the lower case for off. For example, B turns bold on and b turns it off. Say you wished "that" in bold: on screen you would have Bthatb. On paper you'd get: **that**

If either your printer doesn't accept Epson codes or it has extra functions (such as proportional print or a selection of fonts), then you might like to try to define your own code sequences. To do this you must get to



Grand way with *PenDown*

PenDown revealed. Steve Grand programmer of the word-processor passes on useful hints

Okay, let me own up right away. I am sitting in front of an IBM PC writing this article on *Wordstar* — not on my 6128 and not using *PenDown*.

I need access to advanced typesetting features: fast cut and paste and all the other Godsends available to those of us who spend several hours a day churning out text. On the other hand, in my job as a programmer (for which I also use MS-DOS *WordStar*), learning to use such arcane commands as .CW12 QR KB is a justifiable though not inconsiderable cost in return for the extra power.

PenDown was never intended to compete with programs for professional writers. Instead, it allows people to capitalise on an aspect of word-processing never foreseen by the authors of the even more esoteric and incomprehensible predecessors to *WordStar* et al. Instead of 25Ø,ØØØ-word novels, word-processors are spending more and more of their time in the hands of the non-professional, producing simple, short documents: letters, short articles, shopping lists. The value of a word-processor here is not in its typesetting features, but in the way it allows one to think in print: to pour out ideas without fear of making mistakes, to chop and change, to rearrange. The computer does not care how many times you change your mind. You may type away while the ideas are flowing, then tidy up and correct mistakes later.

To do this job well, a word-processor must be simple and as near to invisible as possible. One Golden Rule in computing is that power almost means complexity. When Peter Hunter wrote the original version of *PenDown* for the BBC computer he aimed for simplicity and ease-of-use at the expense of some facilities. Remember this when you use *PenDown*: concentrate on its use as a Thought Processor, use it to play with ideas. Allow yourself to try things out and make mistakes. Word-processing can liberate creativity.

In concentrating on this aspect of writing, *PenDown* is not just a cut-down *Wordstar*. As well as its "What You See Is What You Get" design, drop-down menus and so on, *PenDown* adds some extra features. The most important extra in this context is the Planner.

The Planner is a very useful prelude to any writing activity. Use it to sort out your ideas into sections, sub-sections and sub-sub-sections ad infinitum (well, as far as sub-sub-sub-sub-sub-sub-sub-sub-sub-sections anyway!). Don't forget that you can rearrange the order of branches and their sub-branches at any time by positioning the cursor over one of the lines you wish to swap and pressing Copy. Then place the cursor onto the other line and hit return. When you have finished planning, save it on disk and reload it periodically for reference, or transfer it to *PenDown*. From there you may leave it at the top of the page whilst writing. Or treat it as a list of headings and sub-headings, inserting text in between them as you write, deleting them when finished.



Incidentally, I've been known to use the Planner for sorting out the order of modules when writing a program. Perhaps you can think of other uses?

Steve Grand continues his look at *PenDown* next month.

the main menu, choose "Customize program" and answer Y to the "Define printer control codes (Y/N)" prompt. To modify a control code tap the required letter and enter the code. Your printer manual should contain a list of effects and corresponding codes. Say your printer has an option whereby the print-head can be moved backwards one space — this can be useful for printing accented characters. On the DMP machines the code is 8. To enter this as option M on the *Tasword* printer control code menu hit M. Then type in 8. It is that simple.

Ways with Words

Do you have favourite tricks for getting the best out of your word-processor? Or do you have seemingly insurmountable problems? Share them with other Amstrad addicts. Send them in to: **Words Work, Amstrad Action, 4 Queen St, Bath, BA1 1EJ**.

Quality codes

Reading G Bennett's letter regarding the customization of *Tasword* (AA 24), I altered my Basic program as outlined. However, if your address is not saved in notepad 1 the program crashes. When I used f1 the right-hand justification fouled up. To remedy this leave out CHR$(6) at the end of line 3Ø.

Finally a tip. To get near-letter quality (NLQ) print from *Tasword*: select Customise program (C) from the menu. Then hit Y at the Define printer control characters (Y/N) prompt. Type Q 27 <enter> 12Ø <enter> 1 <enter> <enter> q 27 <enter> 12Ø <enter> Ø <enter> <enter>. Go back to the main menu. Typing Q switches on NLQ while q turns it off.

Andy Mair
West Wickham, Kent

Reformatter

Tasword justifies lines by inserting extra spaces form the right. This can lead to passages of text which look strangely stretched out. This listing reformats an Ascii file generated by *Tasword*. The program first strips out extra spaces and then pads out the line by adding the required extra spaces after the longest words. Extra spaces after long words are far less obtrusive to the eye than a series of widely spaced words to the right of a line. Printer control codes and the second character set are all dealt with properly — the screen may get cluttered though.

```
10 MODE 2:MEMORY &5FFF:DEFSTR a-e:DEFINT f-z:GOSUB 390
20 CLS:a=SPACE$(100):b=a:zarray=&6100:zleng=&6000
30 zstrscan=&6200:zsploc=&6005:zflag2=&6002:zflag4=&6004
40 INPUT"Insert disk with Tasword file. Press return ",d
50 PRINT:CAT:PRINT:INPUT"Name of source file ",oldfile$
60 PRINT:PRINT:CLS:PRINT"Output to ---":PRINT
70 PRINT"1 - Screen":PRINT"2 - Printer and screen"
80 PRINT"3 - Disk file and screen":PRINT
90 a=INKEY$:IF a="" THEN 90 ELSE option=VAL(a)
100 IF option>3 OR option<1 THEN 90
110 IF option=1 THEN f5=0:GOTO 160
120 IF option=2 THEN stream=8:f5=1
130 IF option=3 THEN stream=9:f5=1
140 PRINT:INPUT"Name of destination file ",newfile$:CLS
150 IF stream=9 THEN OPENOUT newfile$
160 OPENIN oldfile$
170 WHILE NOT EOF:LINE INPUT #9,a:f1=0:sc=0:b="":d=""
180 FOR i=1 TO LEN(a):c=MID$(a,i,1)
190 IF c<>" " THEN f1=1:b=b+c:sc=sc+1:POKE (zarray+sc),0:GOTO 230
200 IF f1=0 THEN b=b+c:sc=sc+1:POKE (zarray+sc),1:GOTO 230
210 IF RIGHT$(b,1)=" " THEN GOTO 230
220 b=b+c:sc=sc+1:POKE (zarray+sc),1
230 NEXT i:xtraspaces=LEN(a)-LEN(b)
240 IF xtraspaces=0 THEN 310
250 strlen=LEN(b)
260 POKE zflag2,1:POKE zleng,strlen
270 CALL zstrscan:spaceloc=PEEK(zsploc)
280 IF spaceloc<>0 THEN xx=PEEK(zarray+spaceloc):POKE
    (zarray+spaceloc),(xx+1):xtraspaces=xtraspaces-1
290 IF xtraspaces=0 THEN 310
300 ff2=PEEK(zflag2)+PEEK(zflag4):POKE zflag2,ff2:GOTO 270
310 d="":FOR i=1 TO LEN(b):scan=PEEK(zarray+i)
320 IF scan=0 THEN d=d+MID$(b,i,1):GOTO 360
330 IF scan=1 THEN d=d+" ":GOTO 360
340 IF scan=2 THEN d=d+"  ":GOTO 360
350 IF scan=3 THEN d=d+"   "
360 NEXT i:PRINT d
370 IF f5=1 THEN PRINT#stream,d
380 WEND:CLOSEIN:CLOSEOUT:PRINT CHR$(7);"DONE":END
390 FOR jj=&6200 TO &6266:READ aa:zz=VAL("&"+aa)
400 POKE jj,zz:NEXT jj:RETURN
410 DATA 06,00,3e,00,32,05,60,32,06,60,32,07,60,3e,01,32,04
420 DATA 60,11,00,61,3a,00,60,b8,ca,64,62,04,13,1a,32,08,60
430 DATA 4f,3a,02,60,b9,c2,4e,62,3a,06,60,a7,28,05,3e,00,32
440 DATA 04,60,3a,06,60,4f,3a,07,60,b9,30,0f,3a,06,60,32,07
450 DATA 60,78,32,05,60,3e,00,32,06,60,3a,06,60,3c,32,06,60
460 DATA 3a,08,60,a7,ca,15,62,3e,00,32,06,60,c3,15,62,c9,00
470 DATA 00,00,00
```

G Plain
Coleraine, N Ireland

The program also works on Protext files.

Another half

I use *Protext* on rom and regularly require a half symbol (1/2). To achieve this I have redefined the hash (#) to be a 1/2. To use *Protext* the following must be placed at the start of any file:

```
>OC 27,":",0,0,0
>OC 27,38,0,5,5,11,120,2,4,8,16,32,73,18,1,20,9
>OC 27,37,1,0
>OC 27,73,1
```

To complete the redefinition type SP in Command mode and answer Y to "Redefine characters (y/n)". When asked to press the character to redefine tap shift-3 and enter:

```
27 106 4 5 27 74 4
```

To save having this every time you enter *Protext* save this as the printer driver.

All that remains is the redefinition of the character on the screen. This is the short program I use to boot *Protext*:

```
10 SYMBOL AFTER 32
20 SYMBOL 35,64,192,76,82,68,8,30,0
30 |P
```

This works for the DMP 2ØØØ and 3ØØØ printers if Dip switch DS2-4 (download characters) is on — you shouldn't have problems with Epson compatibles if they have this feature. I didn't need the line >OC 27,":",Ø,Ø,Ø until I had upgraded my printer with the Goldmark Systems Buffer Upgrade kit. If your printer hasn't been modified try it without the line.

Martin Farrar
Beverley, Yorkshire

Second character set

I own a 6128 and DMP 2ØØØ printer and have often tried to print foreign characters like accented letters (è for example) from *Tasword 6128*. I never managed it until I found a README file on the master disk. On loading I discovered it contained amendments and additions, along with a section on printing foreign characters.

The gist of it is as follows: don't install *Tasprint*. Go to the main menu (by pressing control Enter) and hit B to enter Basic. Type LOAD"printeps.bin":CALL &9D1Ø <enter> and return to the main program.

To test this new installation type a few characters from the Second Character Set and go to the print menu. Everything appears on paper, but the bottom row of the character pattern is missing due to the Amstrad seven bit parallel port. Use *Tasprint* to overcome this. Included in the README file are instructions to save *Tasword* with the changes made. Have a look.

Jonathan Hill
Wigton, Cumbria

HOT TIPS

Have you special tricks and tactics with serious software and hardware? Share them with other Amstrad addicts. Send them to "Hot Tips", Amstrad Action, 4 Queen Street, Bath, BA1 1EJ. Remember the best tip each month gets £20.

Disappearing Basic

Try entering POKE &AE2C,1 into a Basic program (6128 only). If you press ESC the program breaks, but the listing vanishes — just as if the program had been saved with the P option.

Tony Hoyle
St Annes

Disk labels

My disks have never been properly labelled because I couldn't be bothered to keep an up-to-date list. If you suffer from the same problem then follow these steps:

- Switch on your printer and enter PRINT #8,CHR$(27)+"A"+CHR$(5)+ CHR$(27)+"M"+CHR$(15) in direct mode.
- Enter CPM, type DIR, hit Ctrl P and press return.
- After printing press Ctrl P.

What you should have on paper is a directory of the disk in condensed print. The perfect size for a disk label.

Dave Curtis
London

Rems and bars don't mix

Another method for overcoming the Syntax error message when using the bar (|) symbol in a REM statement (464 only), is to place a quote mark immediately after the REM or ' command.

Glyn Evans
Whitby

Printer power

I have modified Paul Bower's Poster printing program which appeared in AA 24.

In line 4Ø the semi-colon has been replaced with a comma. This prevents the question mark appearing in print. Line 7Ø turns on the 8th bit to access the printer's IBM second character set. Lines 9Ø and 1ØØ print the character — either 255 (space) or 219 (solid block). Graphics characters obtained when hitting Ctrl and another key may also be printed.

```
2Ø PRINT#8,CHR$(27);"G"
3Ø PRINT#8,CHR$(27);"E"
4Ø MODE 2:INPUT"",A$
5Ø INPUT"CHARACTER HEIGHT ?",Y
6Ø INPUT"CHARACTER WIDTH ?",X
7Ø PRINT #8,CHR$(27);">"
8Ø FOR A=Ø TO (LEN(A$)*8):FOR B=1 TO X
9Ø FOR C=384 TO 399 STEP 2:T=TEST(A,C)
1ØØ IF T=Ø THEN PRINT#8,STRING$(Y,CHR$(219));
11Ø 'F T=1 THEN PRINT#8,STRING$(Y,CHR$(219));
12Ø NEXT:PRINT#8,CHR$(13);CHR$(11);
13Ø NEXT:NEXT
```

John Boon
Bedfordshire

Studio tricks

For those with Rainbird's *Art Studio*, here are a few tips which have saved me a lot of time and effort:

When editing a character set use ctrl and the cursor cluster to select a character without affecting the on-screen cursor.

In magnify mode using Ctrl and the cursor keys will scroll the screen without affecting the cursor. Keys fØ to f3 automatically select the current colour.

Finally, the best way to view a screen is to use the up-down icons in the top right corner. The whole screen scrolls up or down, but you can still use undo on the last thing added to the picture.

Mark Allan
Redcar

Space removal – the sequel

Further to the the September issue regarding the removal of extra spaces at the end of lines. I have discovered that Basic is capable of removing spaces (or at least ensuring that they do not occur) from lines.

To activate the space removal mode type POKE &ACØØ,1. The address is for a 6128, it is likely to be different to other machines.

Say you entered a line:

```
1Ø PRINT "LOTS OF SPACES" :PRINT
```

Using the space removal poke you would get:

```
1Ø PRINT "LOTS OF SPACES":PRINT
```

Note that this only works on lines when you type them in or edit them.

Tony Hoyle
St Annes

Say goodbye

When you've snapped off the tab on one of your cassettes and decide to record over it later, you usually have to hunt for sellotape and place it across the holes. There is an easier way though: press eject on the recorder. At the back to the left you'll see a black lever pointing upwards. Push it back and hold it there, press record, put the tape in, hold record down and finally press play.

Simon Edmonds
Portsmouth

Eight-bit port

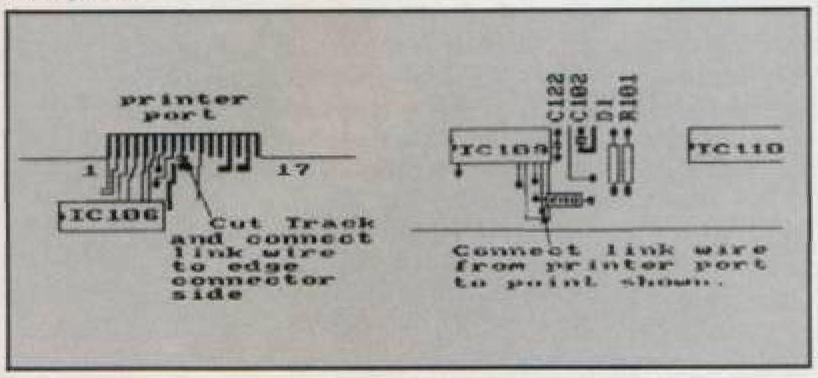
If you wish to receive 8 bits of parallel data from your printer then this might interest you:

Provided your guarantee has expired, you can open the 464 and cut the track as shown below. Connect a wire from the cut track to the point shown in the second diagram. The eighth printer line may be switched in by running the small patch. NB If your guarantee hasn't expired or you're not too hot on technical matters, don't attempt this, because we can't be held responsible for any mistakes.

```
1Ø ' 8-Bit port patch
2Ø n=&7Ø
3Ø READ A:IF A>&FF THEN 11Ø
4Ø POKE N,A:N=N+1:GOTO 3Ø
5Ø DATA &E5,&C5,&F5,&Ø1,&ØØ,&F6
6Ø DATA &ED,&49,&F1,&Ø7,&3Ø,&Ø5
7Ø DATA &Ø1,&1Ø,&F6,&ED,&49,&ØF
8Ø DATA &C1,&E1,&FE,&ØA,&2Ø,&Ø1
```

```
90 DATA &AF,&CF,&F2,&87,&C9
100 DATA 9999
110 POKE &BD2B,&C3:POKE &BD2C,&70
120 POKE &BD2D,0
```

Andy unreadable surname
Bexleyheath



Menu maker

How many times have you typed `RUN "DISC"` instead of `RUN "MENU"` or vice versa? If you have a sector editor then this trivial but annoying problem can be dispensed with easily.

I have used the Head Over Heels disk as my example. To run the program you must type `RUN "MENU"`. I have altered it so you can type either `RUN "MENU"` or `RUN "DISC"`. This procedure can be carried out on any disk based program. Just follow these steps:

FIG 1

```
Sectedit 1.0 - (C) Pride Utilities 1985

Track 0   Sector C1   Page 1

A 00 4D 45 4E 55 20 20 20 20 42 41 53 00 00 00 05   .MENU    BAS....
  02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
  00 48 45 45 4C 53 20 20 20 42 41 53 00 00 00 02   .HEELS   BAS....
  03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
  00 48 31 20 20 20 20 20 20 42 49 4E 00 00 00 80   .H1      BIN...
  04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 10 11 12 13   ................
  00 48 31 20 20 20 20 20 20 42 49 4E 01 00 00 80   .H1      BIN...
  14 15 16 17 18 19 1A 1B 1C 1D 1E 1F 20 21 22 23   ............ !"#
  00 48 31 20 20 20 20 20 20 42 49 4E 02 00 00 41   .H1      BIN...A
  24 25 26 27 28 29 2A 2B 2C 00 00 00 00 00 00 00   $%&'()*+,.......
  00 48 32 20 20 20 20 20 20 42 49 4E 00 00 00 1D   .H2      BIN....
  2D 2E 2F 30 00 00 00 00 00 00 00 00 00 00 00 00   -./0............
B E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   eeeeeeeeeeeeeeee
  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   eeeeeeeeeeeeeeee
  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   eeeeeeeeeeeeeeee
  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   eeeeeeeeeeeeeeee

p.......Move   up  one byte            f1.......Toggle Hex to Ascii
q.......Move down  one byte            f2.......Next page of sector
r.......Move left  one byte            f3.......Change sector/track
s.......Move right one byte            COPY.....Copy sector to disc
```

FIG 2

```
Sectedit 1.0 - (C) Pride Utilities 1985

Track 0   Sector C1   Page 1

A 00 4D 45 4E 55 20 20 20 20 42 41 53 00 00 00 05   .MENU    BAS....
  02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
  00 48 45 45 4C 53 20 20 20 42 41 53 00 00 00 02   .HEELS   BAS....
  03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
  00 48 31 20 20 20 20 20 20 42 49 4E 00 00 00 80   .H1      BIN...
  04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 10 11 12 13   ................
  00 48 31 20 20 20 20 20 20 42 49 4E 01 00 00 80   .H1      BIN...
  14 15 16 17 18 19 1A 1B 1C 1D 1E 1F 20 21 22 23   ............ !"#
  00 48 31 20 20 20 20 20 20 42 49 4E 02 00 00 41   .H1      BIN...A
  24 25 26 27 28 29 2A 2B 2C 00 00 00 00 00 00 00   $%&'()*+,.......
  00 48 32 20 20 20 20 20 20 42 49 4E 00 00 00 1D   .H2      BIN....
  2D 2E 2F 30 00 00 00 00 00 00 00 00 00 00 00 00   -./0............
B 00 44 49 53 43 20 20 20 20 42 41 53 00 00 00 05   .DISC    BAS....
  02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   eeeeeeeeeeeeeeee
  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   eeeeeeeeeeeeeeee

p.......Move   up  one byte            f1.......Toggle Hex to Ascii
q.......Move down  one byte            f2.......Next page of sector
r.......Move left  one byte            f3.......Change sector/track
s.......Move right one byte            COPY.....Copy sector to disc
```

1. Load the disk editor and get to the directory sector. This is located on track 0, sectors `&C1` to `&C4`, for a data formatted disk. Track 2, sectors `&41` to `&44` for a CPM disk.

2. The directory is split into 16 byte blocks, each block corresponds to a file. Say you have HOH; find the block corresponding to MENU.BAS (look at fig. 1) and note down the numbers.

3. Find an empty block — usually filled with `&E5` — and enter the 16 bytes.

4. Check that you didn't make any mistakes and then change the filename `MENU.BAS` to `DISC.BAS` (bytes 1-11), making sure you don't exceed the allocated area.

5. The directory should look similar to fig. 2.

6. Save the sector to disk.

It won't matter whether you type `RUN "MENU"` or `RUN "DISC"`: both will execute the same file. Having two or more filenames will not reduce the memory left on the disk.

Peter Featherstone
Leeds, Yorkshire

Clear screen

Here are two alternative methods for clearing the screen:

```
PRINT STRING$(25,10);CHR$(12)
```

```
PRINT STRING$(25,11);CHR$(12)
```

The first scrolls the whole screen upwards, the second downwards.

David Hamilton
North Kelvinside

Forever error

Type in and run the listing below. Try and correct all the mistakes. It's bound to drive you insane.

```
10 CALL &BC00,0:FOR X=0 TO 50
20 FOR T=0 TO 100:NEXT T
30 CALL &BD00,X:NEXT X
```

M Adams
Newcastle, Staffordshire

Faster speed write

A quicker speed write than Alex Aird's (issue 22) is to type `a%=0:CALL &BC68,@a%` in direct mode, or even within your own program. If you experience `"Write error a"` then assign a different value to a%. For example, `a%=70`.

Craig Parkinson
Rotherham, South Yorkshire

Crazy characters continued

Not wanting to be left out of the craze for odd character sets, here are a few I have written. One produces mirror writing, another reduces the width (but not the space it occupies) of the character by half, and the last gives computerised text.

```
10 ' Mirror writing
20 CLS:SYMBOL AFTER 32:FOR a=HIMEM TO HIMEM+767
30 b$=BIN$(PEEK(a),8):FOR x=8 TO 1 STEP -1
40 a$=a$+MID$(b$,x,1):NEXT x:b$=a$:a$=""
50 POKE a,VAL("&X"+b$):next
```

```
10 ' Half width text
20 CLS:SYMBOL AFTER 32:FOR a=HIMEM TO HIMEM+767
30 b$=BIN$(PEEK(a),8):FOR x=1 TO 8 STEP 2
40 a$=a$+MID$(b$,x,1):NEXT x:b$=a$:a$=""
50 POKE a,VAL("&X"+b$):next
```

```
10 ' Data font
20 CLS:SYMBOL AFTER 32:FOR a=HIMEM TO HIMEM+767 STEP 8
30 FOR b=1 TO 4:a$=BIN$(PEEK(a+b),8)
40 POKE a+b,VAL("&X"+a$) AND VAL("&X"+a$)/2:NEXT b,a
```

Andrew Sharp
Farmoor, Oxford

Map maker

This short program modifies one of the files on Siren Software's *Masterdisc*. It allows you to obtain a sector map of discs with ten sectors per track (for example, RpM's Bigform program). I find it extremely handy for verifying that such disks have been correctly formatted.

```
10 |USER,13:MEMORY &3FFF:LOAD"image1.md",&4000
20 POKE &4114,&C3:POKE &4115,&67:POKE &4116,2
30 POKE &4189,&A6:CALL &BC02:MODE 2:INK 1,26:CALL &4000
```

Richard Hodges
Barnet

PROBLEM ATTIC



RpM goes on his latest problem solving escapade. If your CPC's in danger, if you need help, then perhaps you can contact the AA team.

Lost commands

I have recently acquired a second-hand C-ITOH 8510 dot matrix printer. Unfortunately, it came without a manual and I was wondering if anyone out there could help. I would like to know the codes for the full capabilities of the printer, inclusive of text and graphic commands. I would be most grateful for the information.

Mrs M Corns
Newbold Verdon

The printer you mention is an Apple oldie. Try giving them a ring on 0442 60244. They should be able to supply you with the necessary.

More Midi

I am thinking of purchasing the Ram *Music Machine* and a Casio CZ101 Midi synthesizer. However, as you know, the *Music Machine's* editing functions (for midi compositions) are severely limited due to the memory taken up by the sampling section.

While leafing through my music magazines, I chanced upon an advertisement for DCHP Electronics. They produce a Midi interface for the Amstrad CPC with software capable of storing and helping to create sounds on the CZ101. They also have software capable of turning the CPC into a Midi sequencer. Great. But I would like to buy the Music Machine rather than their interface. I was wondering if it would be possible to use DHCP's software with the *Music Machine's* interface.

Ben Poole
Westcliff-on-Sea

DHCP have several Midi packages for numerous Casio and Korg instruments. Each package comes in three versions. One is compatible with RAM's music machine, another with EMR's Midi interface and the last is for DHCP's own interface. Contact DHCP on 0440 61207 for further details.

Unfortunately we discovered DHCP a little too late to be included in the Midi article. Keep your eyes peeled for it in future issues.

Questions, questions

1. Is it possible to save a Basic program in both Ascii and protected mode?
2. What are the best books for starting machine code, advanced Basic and add-on projects for the CPC 6128?
3. What are the addresses for the ports of the CPC 6128?
4. On the CPC 6128 how do you poke into the second 64K of RAM?
5. I've tried everything, but I can't set the screen colours for Tasword 6128. Putting commands into the Basic loader doesn't work either. Can you help?
6. How can you print a character in two or more colours? In Basic if possible?
7. How do you delete a file from disk without having to load a special program?

Darren Kennedy
Rathfarnham

1. No.

2. Assembly Language Programming for the Amstrad CPC 464, 664 & 6128 by AP &DJ Stephenson. Published by Argus Books at £7.95. ISBN 0 85242 861 8. Advanced Amstrad Basic by Joe Pritchard. Published by Melbourne House at £12.95. ISBN 0 86161 202 7 (reviewed issue 15). Easy Add-on Projects for Amstrad CPC 464, 664, 6128 and MSX Computers by Owen Bishop. Published by Bernard Babani at £2.95. ISBN 0 85934 145 3.

3.

Address	Function	Direction
&7F00	Gate array	Out
&BC00	6845 address	Out
&BD00	6845 data	Out
&BE00	6845 status	In
&BF00	6845 data	In
&DF00	External	Out
&EF00	Printer port	Out
&F400	8255 port A	I/O
&F500	8255 port B	I/O
&F600	8255 port C	I/O
&FF00	Reserved	

4. The second bank of memory is split into 4 blocks of 16k. First you must switch a particular block into memory. This is done using the [illegible] *command. Different values of x switch in different blocks to location* **&4000: &C4** *first block,* **&C5** *second block,* **&C6** *third block and* **&C7** *for the fourth block. Say you wished to poke the third block:* **OUT &7F00,&C6:POKE <any location between &4000 and &8000>, <any value between 0 and 255>**. *To get back to normal enter* **OUT &7F00,&C0**.

5. Go to the main menu (by pressing control and enter) and select Customize program. Answer no to all the questions until you meet Change program. Answer yes. A further set of questions appears giving you the choice of altering colours and so on. Alter whatever you require. That done you should be back to the main menu. Pick Save Tasword. All will be saved.

6. The simplest method is to print two symbols on top of each other in different colours to create the final character. Say you wished to print the character o with a tilde over it, you could have the o in white and the tilde in cyan:

```
10 MODE 1:PRINT CHR$(22);CHR$(1):INK 1,26:INK 2,20
20 LOCATE 1,1:PEN 1:PRINT"o"
30 LOCATE 1,1:PEN 2:PRINT "~"
40 PRINT CHR$(22);CHR$(0):PRINT:PEN 1:END
```

The **CHR$(22);CHR$(1)** *in line 10 switches on transparent mode. Note how to switch it off in line 40.*

7. Simply assign the name of the file you wish to erase to a string variable (for example, **a$="oldfile.bas"**). *Then use the command |ERA to get rid of it:* **a$="oldfile.bas":|ERA,@a$**

Disappearing data

I own a 6128 and have gradually taught myself the mechanics of Basic. I am writing a diary program which can be kept on disk, however, I have encountered a problem when loading data. The data is saved as **x$(a,b) - x$** holding what happens, a the day and b the month. On some days nothing is happening and so nothing is saved. When the data is re-loaded, EOF in line 610 appears on the screen and the program stops. The relevant sections are listed below.

For loading

```
590 OPENIN n$
600 FOR b=1 TO 12:FOR a=1 TO 31
610 INPUT #9,x$(a,b)
620 NEXT a:NEXT b
630 CLOSEIN
```

For saving

```
530 OPENOUT n$
540 FOR b=1 TO 12:FOR a=1 TO 31
550 IF x$(a,b)<>"" THEN WRITE #9,x$(a,b)
560 NEXT a:NEXT b
570 CLOSEOUT
```

Andy Mair
West Wickham

The EOF occurs because you are trying to read in more data than was written to disk. To get round the problem write the whole file including the empty entries. Simply change line 550 to:

```
550 WRITE #9,x$(a,b)
```

Window cleaners

I am writing a program in machine code, using my 6128 and AMX mouse that uses the WIMP environment. I am having problems with the pull down menus as they leave a blank space in their place when they are cleared. I know I have to save what was in the space before the window is placed into memory and then replace it when the window is finished with, but how? I may need several saved parts of the screen in memory at a time.

Ben
Walsham-le-Willows

David Lincoln had a Type-in published in issue 17 that does just what you want. It can be found on page 32 under the guise of Window saver.

Extended memory

Your extended catalogue program was successful in transferring my games to disk on my 6128, except for the ones which had a low start address (below 1000, for example). With these I kept receiving a memory full message. Please can you help?

Paul Hinde
Keswick

Basic starts at 368 and reserves space for itself. To claim some of this space back use the OPENOUT command. Say you wished to load something in at location 500: `OPENOUT"Y": MEMORY 499: LOAD "file",500` *will do the trick. You won't be able to load files lower than 380 unless you resort to machine code.*

Moving down

I have been transferring some of my tape based games to disk, but some of them overwrite the disk operating system. I have tried using the screen to store machine code and then relocate it using the listing below, but it does not work. Can you please explain why it doesn't work.

```
LD HL,&C000
LD DE,&A000
LD BC,length of machine code
LDDR
```

Robert Stockman
Galhampton

The LDDR instruction moves the data which ends at &C000 down to &A000. The HL, DE and BC registers are then decremented until BC equals zero. To make the routine work correctly you need to use an LDIR instruction instead of the LDDR. The LDIR increases HL and DE, but still decreases BC until BC equals zero.

Finding keys

Two questions: how can I write a program to read the keyboard input of a key pressed with control? Do you know of a program that can enable *Protext* to use the extra 64k of the 6128?

Alan Tan
Republic of Singapore

To test a key pressed with control, use INKEY. For example, if you wish to test for control and A you would use the line:

```
10 IF INKEY(69)=32 THEN...
```

The number in brackets following INKEY refers to the key number. These can be found on top of the drive casing (6128 and 664 users) or in the User Instructions. The value after 32 determines the key's state, that is, either on its own, with shift, with control or with both shift and control. The 32 in this case checks for keys pressed with control. Your User Instructions list all the possible values and what they do.

Does anyone know of a program that allows Protext *to use the second memory bank? We haven't heard of one.*

Extra memory

I have a 464 and *Tasword 464* and need extra memory. Is the 64k memory upgrade available for DK'tronics suitable for my set-up? I don't have a disk drive.

A Avison
S Humberside

Tasword 464 *and* 464D *don't use extra memory if it is present. However,* Tasword 6128 *does – unfortunately it's only available on disk. I'm afraid you're snookered.*

Which machine?

Is there a short Basic listing that can tell which CPC (464, 664 or 6128) is being used?

Justin Mason
Isle of Wight

```
10 FOR t=&9000 TO &900A:READ A$:POKE t,VAL("&"+a$)
20 NEXT:CALL &9000:a=PEEK(&900A):PRINT a
30 DATA 0e,00,cd,15,b9,7c,32,0a,90,c9,00
```

The short listing will print a 0 if the machine is a 464, 1 if it is a 664 or a 2 if it's a 6128. It works by checking the Rom version. Rather than printing the result you may like to have several IF THEN commands in you program: `IF a=1 then GOTO 800` *and so on.*

Big disk

I have been offered a double-sided, double-density 5.25 inch disk drive. I want to know if there is an interface which will allow it to work with my 6128 and how much the interface will cost.

Barry Slip
Trowbridge

Silicon Systems sell the Megadrive at £199.95 (reviewed issue 20). This consists of a drive identical to yours and an interface and software. The interface and software can be picked up for £39.95. Silicon are on 061 848 8959.

Dumped directory

In the Type-Ins section of the August issue of AA you printed a program by Martin Packer which dumped the contents of disk directory into Basic variables. Unfortunately for this program to work correctly a MODE 0 command needs to be executed first. Why? And is any way of getting the program to work without it?

Chris Parsons
Coventry

Martin's program requires a Mode change before working to ensure the screen is cleared and hasn't scrolled: his program reads the contents of the screen directly, if the screen was moved a fraction then it wouldn't work. No, there is no simple way of altering it.

Print for Programmers

A book for the beginner and one for advanced programmers, read by Richard Monteiro

Digital Research

CPM Plus Handbook

Heinemann, ISBN 0 434 90321 3, 515pp paperback, £14.95

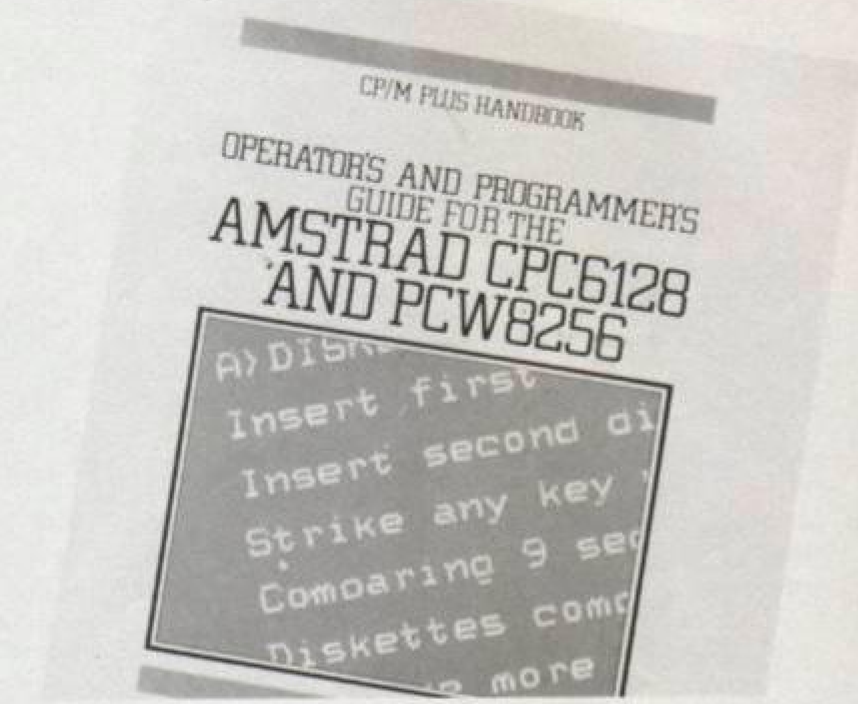
The authoritative *CPM Plus Handbook: Operator's and Programmer's Guide for the Amstrad CPC6128 and PCW8256*, apart from tiring text-tacklers tongues, has been gracing book stalls for several years. Just recently it has undergone surgery. Unlike many face-lifts though, the content has been increased. The '87 floppyback version provides 515 pages of pure programming paraphernalia and a "Now with GSX supplement" flash.

Both Amstrad plc and Digital Research Inc have poured their knowledge into this publication: you can expect an in-depth, precise read.

The book is split into two distinct parts: how to use CPM Plus and how to program using CPM plus. The first section gives you full details on CPM commands, how to accomplish mundane but necessary tasks (such as copying and formatting a disk) and gives a rundown of the files on the reverse of your system disk — something the 6128 User Instructions failed miserably to convey. Section two is purely for those wishing to program in 8080 using various CPM system calls.

It seems the main reason for giving the book a new lease of life was to include an appendix on GSX. By piping a Graphic System eXtension to CPM, you can persuade it to produce graphics. A lot of hard work is needed to set up a working system — just don't expect this information in the book. CPM plus Handbook is not for the novice. It is aimed at those wanting to fill gaps in their knowledge of CPM.

Although the Handbook scrapes the £15 mark, the price is justified: you'd be hard put to find such a complete, comprehensive collection of CPM Plus secrets anywhere else. If you're a Plus programmer, a fanatical fancier of technical data or harbour a desire to understand the undocumented utilities on your system disk, this is the book for you.



Heinemann Ltd ☎ 01 493 4141
10 Upper Grosvenor Street, London W1X 9PA

GOOD NEWS	BAD NEWS
■ Packed with detail. ■ Indexed at both ends of the book. ■ The best publication on using and programming in CPM plus.	■ Not for the beginner or non-techie. ■ The 40-odd pages on GSX could have been used more wisely.

Tim Herbertson

Amstrad Assembly Language Course

Glentop, ISBN 1 85181 112 5, 256pp paperback, £12.50 with tape, £17.50 with disk

For £12.50 you receive Glentop's *Amstrad Assembly Language Course* which comprises a 256-page paperback book and an assembler on cassette. An extra five pounds buys you a disk. Glentop has had this product on the streets for a good six months. We have just caught sight of it.

Most books and manuals attempting to teach beginners Z80 assembly language start, wisely, with numeral systems: binary (base 2) and hexadecimal (base 16) in particular. If you wish to grasp assembler and eventually program efficiently, binary and hex have to be second nature. Tim Herbertson's book doesn't begin in this fashion. In fact, it only introduces you to binary and the like in the appendix. Not very useful for the novice.

The cassette or disk that accompanies the book holds an assembler, a base converter and a demo on how to use the RSX commands that grace many of the book's pages. The assembler's not in the same league as Maxam or Pyradev, but it's competent. Right from the outset you are encouraged to use the assembler. Examples are always provided and many chapters end with a problem for you to solve.

You are taken through all the more common Z80 opcodes, how to perform arithmetic operations from code, several useful firmware calls and brush RSX (bar) commands.

Assembly Language Course doesn't start on the right foot, but generally the content is first class and contains everything the beginner might need. Explanation is detailed and backed up by many examples that can be entered into the assembler. A particular pat on the back for having problems at the end of chapters.



Glentop Publishers Ltd ☎ 01 441 4130
Standfast House, Bath Place, High Street Barnet, Herts, EN5 5XE

GOOD NEWS	BAD NEWS
■ Neat having book and tape (or disk) in one package. ■ Good introduction to assembler: explained clearly and in detail.	■ Binary and hexadecimal counting systems explained only in the appendix. ■ Price is rather high.



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TYPE-INS

Program made plain

Discover a program's secrets: how it works, improvements that can be made and techniques worth remembering. This month we look at a utility listing guaranteed to make designing characters easier.

SYMBLAID

Having problems defining characters? Can't quite get to grips with the SYMBOL command? Look no further than this page. For **Thomas Betts** from West Wickham, Kent, has just the program for you. It may not contain advanced features such as inverting and mirroring, but is short, simple and displays all the numbers needed in the SYMBOL command to define a character.

Symblaid draws up an eight by eight grid box and allows you to move a cursor, forward by hitting the space bar and backwards with the delete key (DEL). To plot a point hit the full stop. Once you've finished a character definition the program displays something like `SYMBOL z, 125, Ø, 56, Ø, Ø, 56, Ø, 125`. Jot this information down. When you come to define a character within your own program you will need the following lines:

```
1Ø SYMBOL AFTER z-1
2Ø SYMBOL z,125,Ø,56,Ø,Ø,56,Ø,125
```

The variable z refers to the value of the character you wish to redefine. Say that this character is 65 (which happens to be the code for A): you would substitute z for 65.

```
1 ' Symblaid
2 ' by Thomas Betts
3 ' November 1987
1ØØ MODE 1:n=97:PAPER 1:PEN Ø:left=2
11Ø WINDOW #1,1,4Ø,1,4
12Ø WINDOW #2,1,4Ø,6,9
13Ø WINDOW #3,1,4Ø,22,25
```

Variables, mode and colours are set up in the first line of the listing. The following three lines deal with defining of windows. Eight windows can be opened on the screen at once (Ø to 7). The number following the hash determines the window. All other figures deal with the window's dimensions: left, right, top, bottom.

Key definitions

```
14Ø SYMBOL 24Ø,Ø,126,66,66,66,66,126,Ø
15Ø KEY 159,""                     ' Disable
16Ø FOR k=Ø TO 78                  ' all keys
17Ø KEY DEF k,Ø,159,159,159        ' except
18Ø NEXT k                         ' DEL & space
19Ø KEY DEF 31,1,24Ø:KEY DEF 47,1,233
```

Line 14Ø defines character 24Ø to be a box. This symbol is used as the cursor later on in the program. To lock out all the keyboard, Thomas has first assigned an empty string to character 159. He then defines each key in turn to equal the empty string. The space bar and DEL keys are re-initialised in line 19Ø.

Keys are defined by first stating the key number (these can be found sitting on top of the disk case of the 6128 or at the back of the User Instruction manual), the auto repeat state (1 for auto repeat, Ø for no auto repeat), character displayed when hitting a key normally, character displayed when key is hit with shift and character appearing when key is tapped with control.

```
2ØØ PRINT #1,"      AN AID TO SYMBOL DEFINITION"
21Ø PRINT #1
22Ø PRINT #1,"Use full stop (.) to illuminate a pixel"
23Ø PRINT #1," Space moves forward and DEL backwards"
24Ø LOCATE #3,1,1
25Ø PRINT #3,"When the matrix is finished the symbol"
26Ø PRINT #3,"     parameters will be displayed"
27Ø WINDOW left,left+7,11,19: ORIGIN (left-1)*16,112
```

To send characters to a particular window, the window or stream number must be included. Say you wished to send information to window two: `PRINT #2,"this is going to window two."`

Cursor positioning

An easy way of swapping the paper and pen inks by printing Ascii character 24. See line 28Ø.

```
28Ø PRINT CHR$(24):CLS:PRINT CHR$(24);
```

Line 32Ø waits for a keypress. If it detects either the delete, space bar or full stop it prints the appropriate character. Otherwise you stay at Line 32Ø.

```
29Ø PRINT STRING$(64,CHR$(233));
3ØØ LOCATE 1,1:CALL &BB81        ' text cursor on
31Ø WHILE VPOS(#Ø)<9
32Ø e$=INKEY$:IF e$="" THEN 32Ø
33Ø IF e$=CHR$(127) THEN 34Ø ELSE 36Ø
34Ø IF POS(#Ø)=1 AND VPOS(#Ø)=1 THEN 37Ø
35Ø PRINT CHR$(8)CHR$(233)CHR$(8);:e$=""
36Ø PRINT e$;
37Ø WEND
```



Once the program has discovered the cursor lying at the bottom right of the grid it displays all the SYMBOL data. There are four grids. Data is printed each time you finish editing a grid.

```
38Ø LOCATE 1,9:PRINT CHR$(n);
39Ø IF POS(#2)>1 THEN PRINT #2
4ØØ PRINT #2,"SYMBOL "CHR$(n);
41Ø FOR y=119 TO 7 STEP -16
42Ø value=128:sum=Ø
43Ø FOR x=7 TO 119 STEP 16
44Ø sum=sum+TEST(x,y)*value
45Ø value=value/2
46Ø NEXT x
47Ø PRINT #2,",";MID$(STR$(sum),2);
48Ø NEXT y
49Ø left=left+1Ø:n=n+1:IF n=123 THEN n=97
5ØØ IF left<>42 THEN 56Ø
51Ø CLS #3
```

```
8Ø DATA B7,DD,56,ØØ,2Ø,Ø2,16,79,F3,Ø1,ØE,F4,ED,49,Ø1,CØ
9Ø DATA F6,ED,49,ØE,ØØ,ED,49,Ø1,92,F7,ED,49,Ø1,45,F6,ED
1ØØ DATA 49,Ø1,ØØ,7F,ED,49,3E,4Ø,Ø6,7F,ED,79,3C,E6,5F,42
11Ø DATA ØØ,1Ø,FD,Ø6,F4,ED,58,CB,7B,2Ø,ED,FB,C9,ØØ,ØØ,ØØ
```

Diskedit

You no longer need a commercial disk editor to inspect your disks, as **Martin Shroeder** from West Germany has sent in a powerful disk editor. There are two listings. Enter the first and save it as diskedit.bas. Type in the second listing, save it as diskedit.dat and then run it. This causes a file, diskedit.bin, to be saved to disk. You may now run diskedit.bas.

There is no need to list all the commands as the program displays them constantly. If you haven't used a disk editor then pin back your eyes.

A disk editor allows you to examine and alter information held on a disk. Disks are split into 4Ø concentric tracks numbered from Ø to 39. Each track is split into nine slices (sectors). Sectors can have any number. However, Amsdos only recognises those starting at &41 (CPM format) and &C1 (Data format). Diskedit allows you to look at many non-standard format disks along with the standard bunch. The first few sectors of a DATA formatted disk contain the directory (track 2 for CPM). Programs are saved on all other sectors — if you have a hunt around commercial disk software you may find messages, though not all are savoury.

Make a backup before fiddling with a disk. It is all too easy to alter something and find, at a later date, that your most treasured piece of software doesn't work.

```
1 ' Diskedit
2 ' by Martin Shroeder
3 ' Amstrad Action  November 87
1Ø IF PEEK(&AFØØ)<>221 THEN LOAD"!diskedit.bin"
2Ø 'Error Messages off & Retry Count=1
3Ø POKE &BE78,&FF:POKE &BE66,1
4Ø RESTORE 5Ø:FOR i=1 TO 4:READ a:KEY a,CHR$(1):NEXT
5Ø DATA 134,132,136,13Ø
6Ø DEFINT A-Z:DIM ss(1Ø):v=1
7Ø GOSUB 1Ø2Ø:GOSUB 89Ø
8Ø MODE 2:INK Ø,Ø:BORDER Ø:INK 1,26:page=1
9Ø GOSUB 61Ø
1ØØ buff=&3ØØØ
11Ø LOCATE 1,4:CALL &AFØØ,buff
12Ø x=7:y=4
13Ø GOSUB 29Ø ' Cursor on/off  Test Key
14Ø a=ASC(a$)
15Ø IF a<1Ø AND a>Ø THEN ON a GOTO 78Ø,86Ø,82Ø,84Ø
16Ø IF a=13 THEN 44Ø 'ASCII Input
17Ø IF (a>239 AND a<244) THEN 35Ø
18Ø IF NOT((a>64 AND a<71) OR (a>47 AND a<58)) THEN 13Ø
19Ø a=VAL("&"+a$)
2ØØ z1$=a$:LOCATE x,y:PRINT z1$:x=x+1
21Ø GOSUB 29Ø:a=ASC(a$)
22Ø IF NOT((a>64 AND a<71) OR (a>47 AND a<58)) THEN 21Ø
23Ø a=VAL("&"+a$)
24Ø LOCATE x,y:PRINT a$
25Ø g=VAL("&"+z1$+a$):POKE buff+(y-4)*16+INT((x-7)/3),g
26Ø IF a$=CHR$(13) THEN 12Ø
27Ø LOCATE 58+INT((x-7)/3),y:PRINT CHR$(1);CHR$(g);
28Ø GOTO 42Ø
29Ø CALL &BB81:LOCATE x,y:a$=UPPER$(INKEY$)
   IF a$="" THEN CALL &BB84:GOTO 29Ø
3ØØ CALL &BB84:IF a$="|" THEN 74Ø  'next Page
31Ø IF a$="/" THEN 94Ø 'write Sector
32Ø IF a$="\" THEN 7Ø 'Track & Drive
33Ø RETURN
34Ø ' Move Cursor
35Ø ON (a-239) GOTO 36Ø,38Ø,4ØØ,42Ø
36Ø y=y-1:IF y<4 THEN y=19
37Ø GOTO 13Ø
38Ø y=y+1:IF y>19 THEN y=4
39Ø GOTO 13Ø
4ØØ d=INT((x-7)/3):x=d*3+4:IF x<7 THEN x=52:GOTO 36Ø
41Ø GOTO 13Ø
42Ø d=INT((x-7)/3):x=d*3+1Ø:IF x>53 THEN x=7:GOTO 38Ø
43Ø GOTO 13Ø
44Ø x=INT((x-7)/3)+58
45Ø GOSUB 29Ø
46Ø a=ASC(a$)
47Ø IF a=13 THEN x=(x-58)*3+7:GOTO 13Ø 'HEX Input
48Ø IF a<1Ø AND a>Ø THEN hh=1:ON a GOTO 78Ø,86Ø,82Ø,84Ø
49Ø IF (a>239 AND a<244) THEN GOTO 52Ø
5ØØ LOCATE x,y:PRINT CHR$(1);CHR$(a)
   POKE buff+16*(y-4)+x-58,a
51Ø LOCATE 3*(x-58)+7,y:PRINT HEX$(a):GOTO 59Ø
52Ø ON (a-239) GOTO 53Ø,55Ø,57Ø,59Ø
53Ø y=y-1:IF y<4 THEN y=19
54Ø GOTO 45Ø
55Ø y=y+1:IF y>19 THEN y=4
56Ø GOTO 45Ø
57Ø x=x-1:IF x<58 THEN x=73:GOTO 53Ø
58Ø GOTO 45Ø
59Ø x=x+1:IF x>73 THEN x=58:GOTO 55Ø
6ØØ GOTO 45Ø
61Ø GOSUB 62Ø:GOTO 66Ø
62Ø LOCATE 2,2:PRINT"     Drv.:"d$"    Pag.:"page" Tra.:
   "HEX$(tra,2)"  ID: ";
63Ø IF fc THEN GOTO 1Ø1Ø ELSE FOR s=1 TO diff+1:PRINT
   HEX$(ss(s),2);SPC(1);:NEXT:PRINT SPACE$(3);:PRINT
64Ø LOCATE 36+v*3,2:PRINT CHR$(24);HEX$(ss(v),2);
   CHR$(24);:PRINT
65Ø RETURN
66Ø MOVE 1,388:DRAW 586,388:DRAW 586,365:MOVE 585,388:DRAW
   585,365:DRAW 1,365:DRAW 1,388:MOVE 2,388:DRAW 2,365
67Ø RESTORE 73Ø:FOR o=1 TO 4:READ a,b,c,d:MOVE a,b:DRAW
   c,d:MOVE a+1,b-1:DRAW c+1,d-1:NEXT
68Ø CALL &BB84
69Ø TAG:MOVE 2Ø,7Ø:PRINT CHR$(24Ø);" .. Cursor up  ";
   CHR$(241);" .. Cursor down  ";CHR$(243);" .. Cursor
   right  ";CHR$(242);" .. Cursor left";
7ØØ MOVE 2Ø,5Ø:PRINT CHR$(13);" .. Hex/Ascii  | .. Next
   Page   / .. Write Sector  \ .. Track/Driv";
71Ø MOVE 2Ø,3Ø:PRINT "f6 . Sector up  f4 . Sector down
   f8 . Track up     f2 . Track down";
72Ø TAGOFF:RETURN
73Ø DATA 1,1,1,85,1,85,585,85,585,85,585,1,585,1,1,1
74Ø 'Page up/down
75Ø page=page+1:IF page>2 THEN page=1
76Ø buff=&3ØØØ+256*(page-1)
77Ø LOCATE 1,4:CALL &AFØØ,buff:f1=1:GOSUB
   61Ø:f1=Ø:GOTO 29Ø
78Ø v=v+1
79Ø IF v>diff+1 THEN v=1
8ØØ CALL &AFC6,&3ØØØ,dri,tra,ss(v)
81Ø GOSUB 62Ø:LOCATE 1,4:CALL &AFØØ,buff:IF hh THEN
   hh=Ø:GOTO 45Ø ELSE 13Ø
82Ø tra=tra+1:IF tra>41 THEN tra=Ø
83Ø GOSUB 89Ø:GOTO 81Ø
84Ø tra=tra-1:IF tra<Ø THEN tra=41
85Ø GOTO 83Ø
86Ø v=v-1:IF v<1 THEN v=diff+1
87Ø GOTO 8ØØ
88Ø ' Get ID & Read first SECTOR of TRACK
89Ø CALL &AFBØ,tra,dri:POKE &AØØØ,Ø:CALL &AF9Ø,dri
9ØØ fc=PEEK(&AØØØ):adr%=Ø:CALL &AF7Ø,@adr%
91Ø diff=adr%-&7ØØ1:FOR u=&7ØØØ TO &7ØØØ+diff:ss
   (u-&6FFF)=PEEK(u):NEXT
92Ø CALL &AFC6,&3ØØØ,dri,tra,ss(v)
93Ø RETURN
94Ø ' Write Sector
95Ø LOCATE 2,2:PRINT SPACE$(64):LOCATE 2,2:PRINT
   SPC(1Ø);CHR$(7);
96Ø PRINT "Write  Sector:";HEX$(ss(v),2);" -  Are you
   sure ? (y-yes  n-no)"
97Ø w$="":WHILE w$<>"n" AND w$<>"y":w$=LOWER$(INKEY$):WEND
98Ø IF w$="n" THEN GOSUB 62Ø:GOTO 33Ø
99Ø CALL &AFCD,&3ØØØ,dri,tra,ss(v)
1ØØØ GOSUB 62Ø:GOTO 33Ø
1Ø1Ø PRINT"  NO FORMAT !!";CHR$(7);SPC(14):GOTO 65Ø
```

```
1020 PRINT CHR$(4);CHR$(2);"Diskedit V1.Ø  (c) 1987
    by M.Schroeder"
1Ø3Ø LOCATE 1,3:INPUT "Drive:",d$:LOCATE 1Ø,3:
    INPUT "  Track:",tra
1Ø4Ø d$=UPPER$(d$):dri=ASC(d$)-65:IF dri<Ø OR dri>1
    THEN 1Ø2Ø
1Ø5Ø IF tra>41 THEN 1Ø2Ø
1Ø6Ø RETURN
```

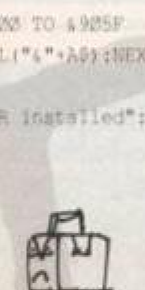
The second listing contains machine code data. Type it in and save it as diskedit.dat. Run the program — most important if you wish a working Diskedit program. If no errors occur a file called diskedit.bin will save to disk.

```
1 ' Diskedit (data loader)
2 ' by Martin Shroeder
3 ' Amstrad Action  November 87
2Ø MODE 2:f$=CHR$(13)+CHR$(1Ø):adr=448ØØ:steps=24
3Ø FOR loop=1 TO steps:check=Ø
4Ø FOR l=1 TO 1Ø:READ a$:a=VAL("&"+a$)
5Ø POKE adr+(loop-1)*1Ø+l-1,a:check=check+a:NEXT
6Ø READ checks$:checks=VAL("&"+checks$):IF checks<>check
   THEN 1ØØ
7Ø LOCATE 1,2:PRINT"checking line:";15Ø+(loop-1)*1Ø:NEXT
75 PRINT:PRINT CHR$(7);"Insert disc then press any key:"
8Ø CALL &BB18:SAVE"diskedit",b,&AFØØ,&1ØØ
9Ø END
1ØØ errl=15Ø+(loop-1)*1Ø
11Ø PRINT CHR$(11);CHR$(13);"Error in line:";errl;CHR$(7)
12Ø PRINT"Press fØ to edit the line.";f$
13Ø KEY 128,"EDIT"+STR$(errl)+CHR$(13)
14Ø 'MC CODE (Length:629 Bytes)
15Ø DATA DD,66,Ø1,DD,6E,ØØ,Ø6,1Ø,C5,CD,437
16Ø DATA 51,AF,Ø6,Ø2,3E,2Ø,CD,5A,BB,1Ø,358
17Ø DATA F9,E5,Ø6,1Ø,C5,E5,7E,21,ØØ,ØØ,43D
18Ø DATA 6F,CD,55,AF,E1,C1,3E,2Ø,CD,5A,567
19Ø DATA BB,23,1Ø,EC,Ø6,Ø3,3E,2Ø,CD,5A,368
2ØØ DATA BB,1Ø,F9,E1,Ø6,1Ø,C5,E5,7E,CD,5BØ
21Ø DATA 5D,BB,E1,C1,23,1Ø,F5,3E,ØD,CD,4FA
22Ø DATA 5A,BB,3E,ØA,CD,5A,BB,C1,1Ø,B8,4C8
23Ø DATA C9,7C,CD,5A,AF,7D,CD,5A,AF,C9,637
24Ø DATA F5,1F,1F,1F,1F,CD,63,AF,F1,E6,527
25Ø DATA ØF,FE,ØA,38,Ø2,C6,Ø7,C6,3Ø,C3,3D7
26Ø DATA 5A,BB,DD,66,Ø1,DD,6E,ØØ,E5,21,4AA
27Ø DATA Ø1,7Ø,Ø6,4Ø,C5,46,3A,ØØ,7Ø,B8,324
28Ø DATA 28,Ø5,23,C1,1Ø,F2,C5,C1,EB,E1,565
29Ø DATA 73,23,72,C9,DD,5E,ØØ,16,ØØ,21,343
3ØØ DATA ØØ,7Ø,Ø6,24,D5,E5,C5,DF,AD,AF,554
31Ø DATA 3Ø,18,C1,E1,D1,3A,51,BE,77,23,49E
32Ø DATA 1Ø,EE,C9,6C,C5,Ø7,DD,5E,ØØ,DD,517
33Ø DATA 56,Ø2,DF,C3,AF,C9,E1,E1,E1,3E,653
34Ø DATA Ø1,32,ØØ,AØ,C9,63,C7,Ø7,CD,D4,46E
35Ø DATA AF,DF,E4,AF,C9,CD,D4,AF,DF,E7,8ØØ
36Ø DATA AF,C9,DD,66,Ø7,DD,6E,Ø6,DD,5E,54E
37Ø DATA Ø4,DD,56,Ø2,DD,4E,ØØ,C9,66,C6,459
38Ø DATA Ø7,4E,C6,Ø7,ØØ,ØØ,ØØ,ØØ,ØØ,ØØ,122
```

Case converter

Owen Cunningham from Livingston in West Lothian has written a useful utility that alters anything sent to the printer. The command |UPPERCASE changes everything for the printer — surprisingly — to upper case. For the opposite effect use |LOWERCASE.

```
1 ' Case converter
2 ' by Owen Cunningham
3 ' Amstrad Action  November 87
1Ø MODE 1:MEMORY &8FFF:c=Ø:FOR n=&9ØØØ TO &9Ø5F
2Ø READ A$:POKE N,VAL("&"+A$):C=C+VAL("&"+A$):NEXT
3Ø IF C<>3541 THEN 5Ø
4Ø CALL &9ØØØ:PRINT"|UPPER and |LOWER installed":END
5Ø PRINT CHR$(7);"ERROR IN DATA!"
```



```
6Ø DATA 3A,2B,BD,2A,2C,BD,32,5A,9Ø,22,5B,9Ø,Ø1,15,9Ø,21
8Ø DATA 2Ø,9Ø,C3,D1,BC,1D,9Ø,C3,2C,9Ø,C3,44,9Ø,55,5Ø,5Ø
1ØØ DATA 45,D2,4C,4F,57,45,D2,ØØ,4E,57,45,4E,3E,C3,32,2B
12Ø DATA BD,21,38,9Ø,22,2C,BD,C9,FE,61,38,1E,FE,7B,3Ø,1A
14Ø DATA D6,2Ø,18,16,3E,C3,32,2B,BD,21,5Ø,9Ø,22,2C,BD,C9
16Ø DATA FE,41,38,Ø6,FE,5B,3Ø,Ø2,C6,2Ø,A4,41,41,2Ø,38,37
```

League fixtures

Here's a handy program for calculating league fixtures. Sent in by **John Holbrow** of Westbury, it will handle any number of teams in a football, skittles, darts or any other league.

Say there are eight teams; the program will work out weekly fixtures so that each team plays the other seven once a week, over a seven week period. Each team is represented by a number starting from one.

You can choose to send the output to screen or printer.

```
1 ' League fixtures
2 ' by John Holbrow
3 ' Amstrad Action  November 87
1Ø MODE 2:DEFINT a-z
2Ø INPUT "How many teams in league";t
3Ø IF t<2 OR t>1ØØ THEN 1Ø
4Ø IF t/2<>INT(t/2) THEN t=t+1:by=1
5Ø DIM fx(t-1,t/2,2)
6Ø LOCATE 1,3:PRINT"Calculating Week";
7Ø FOR p=1 TO t-1
8Ø LOCATE 17,3:PRINT p;
9Ø x=1:y=t:f=Ø:w=t-1:k=1
1ØØ FOR c=1 TO w
11Ø IF c<>p OR x>y THEN 14Ø
12Ø fx(p,k,1)=x:fx(p,k,2)=y
13Ø k=k+1
14Ø IF f=1 THEN y=x:f=Ø
15Ø y=y-1:IF y=x THEN y=t:f=1
16Ø IF y>Ø THEN 19Ø
17Ø IF x=w THEN y=t:f=1:GOTO 19Ø
18Ø y=t-1
19Ø NEXT c
2ØØ x=x+1:y=t-x+1:f=Ø
21Ø IF x<>t THEN 1ØØ
22Ø NEXT p
23Ø '
24Ø ' ******* Display Fixtures ********
25Ø '
26Ø LOCATE 1,5
27Ø PRINT"Output to (S)creen or (P)rinter ?"
28Ø a$=UPPER$(INKEY$)
29Ø IF a$="S"THEN s=Ø:GOTO 32Ø
3ØØ IF a$="P"THEN s=8:GOTO 32Ø
31Ø GOTO 28Ø
32Ø PRINT#s:PRINT#s,"Fixtures for";t-by;" teams"
33Ø FOR x=1 TO w STEP 7:'(step 3 if using 4Ø cols)
34Ø k=1:ta=Ø
35Ø PRINT#s,:FOR p=x TO x+6:'(x+2 if using 4Ø cols)
36Ø IF p>w THEN 42Ø
37Ø PRINT#s,TAB(ta);fx(p,k,1);
38Ø IF fx(p,k,2)=t AND by=1 THEN PRINT#s,"= Bye";:GOTO 4ØØ
39Ø PRINT#s,"-";fx(p,k,2);
4ØØ ta=ta+11
41Ø NEXT p
42Ø ta=Ø:k=k+1:IF k<=t/2 THEN 35Ø
43Ø PRINT#s,:NEXT x
44Ø PRINT#s
45Ø PRINT"Another Copy (y/n) ?"
46Ø a$=UPPER$(INKEY$)
47Ø IF a$="Y" THEN 27Ø
48Ø IF a$="N" THEN END
49Ø GOTO 46Ø
```

Maze

Ian Duffy from Worksop has written a routine that makes an ideal foundation for a game. It is a maze generator. The listing is lengthy because many checks are needed to calculate the maze. For example, where a path branches and whether it comes to a dead end. As it is set up you can choose the maze to be any size — but not larger than the screen size. Try creating a game, we might publish the best one.

```
1 ' Maze
2 ' by Ian Duffy
3 ' Amstrad Action  November 87
1Ø ' Main loop
2Ø MODE 2:DIM branch(3Ø,1)
3Ø WHILE UPPER$(a$)<>"S"
4Ø GOSUB 1Ø4Ø 'Initialise
5Ø WHILE loop=Ø
6Ø maze%(x,y)=1
7Ø GOSUB 14Ø 'Make the maze
8Ø WEND
9Ø GOSUB 9ØØ 'Print the maze
1ØØ ERASE maze%
11Ø WEND
12Ø CLS:END
13Ø 'Choose direction, branch ?, end ?
14Ø r=INT(RND*1ØØ)+1
15Ø d=2:GOSUB 82Ø
16Ø IF c=Ø THEN GOSUB 49Ø:RETURN 'End path
17Ø IF r<e THEN GOSUB 49Ø:RETURN 'End path
18Ø IF r<25 AND c>1 AND bran<31 THEN GOSUB 22Ø 'Branch
19Ø GOSUB 36Ø 'Move
2ØØ RETURN
21Ø 'Branch
22Ø z=INT(RND*c)+1
23Ø b$=MID$(c$,z,1)
24Ø IF b$="l" THEN maze%(x-1,y)=1:nx=x-2:ny=y:GOSUB 31Ø
25Ø IF b$="r" THEN maze%(x+1,y)=1:nx=x+2:ny=y:GOSUB 31Ø
26Ø IF b$="u" THEN maze%(x,y-1)=1:nx=x:ny=y-2:GOSUB 31Ø
27Ø IF b$="d" THEN maze%(x,y+1)=1:nx=x:ny=y+2:GOSUB 31Ø
28Ø c$=LEFT$(c$,z-1)+MID$(c$,z+1,4):c=c-1
29Ø RETURN
3ØØ 'Branch stack handler
31Ø maze%(nx,ny)=1
32Ø branch(bran,Ø)=nx:branch(bran,1)=ny
33Ø bran=bran+1:left=left-1
34Ø RETURN
35Ø 'Move
36Ø WHILE c>1:GOSUB 73Ø:WEND 'Close off exits
37Ø a$=c$
38Ø h=1:GOSUB 73Ø:h=2 'Make a path
39Ø d=1:GOSUB 82Ø
4ØØ WHILE c>Ø:GOSUB 73Ø:WEND
41Ø c$=a$
42Ø IF c$="l" THEN x=x-2
43Ø IF c$="r" THEN x=x+2
44Ø IF c$="u" THEN y=y-2
45Ø IF c$="d" THEN y=y+2
46Ø left=left-1
47Ø RETURN
48Ø 'End path
49Ø d=1:GOSUB 82Ø
5ØØ WHILE c>Ø:GOSUB 73Ø:WEND
51Ø IF left=Ø THEN loop=1:RETURN
52Ø IF bran=Ø THEN GOSUB 57Ø:RETURN
53Ø bran=bran-1
54Ø x=branch(bran,Ø):y=branch(bran,1)
55Ø RETURN
56Ø ' Search for bit of path ...
57Ø x=cx:y=cy:flag=Ø
58Ø WHILE flag=Ø
59Ø x=x+2
6ØØ IF x>mx THEN x=1:y=y+2
61Ø IF y>my THEN y=1
62Ø IF maze%(x,y)=1 THEN GOSUB 66Ø
63Ø WEND
64Ø RETURN
65Ø '... Is it next to a space ?
66Ø d=2:GOSUB 82Ø
67Ø IF c=Ø THEN RETURN
68Ø cx=x:cy=y
69Ø h=1:GOSUB 73Ø:h=2:flag=1
7ØØ c$=b$:GOSUB 42Ø
71Ø RETURN
72Ø 'Fill in walls, break them
73Ø z=INT(RND*c)+1
74Ø b$=MID$(c$,z,1)
75Ø IF b$="l" THEN maze%(x-1,y)=h
76Ø IF b$="r" THEN maze%(x+1,y)=h
77Ø IF b$="u" THEN maze%(x,y-1)=h
78Ø IF b$="d" THEN maze%(x,y+1)=h
79Ø c$=LEFT$(c$,z-1)+MID$(c$,z+1,4):c=c-1
8ØØ RETURN
81Ø 'Search surroundings
82Ø c$=""
83Ø IF x-2>Ø THEN IF maze%(x-d,y)=Ø THEN c$=c$+"l"
84Ø IF x+2<mx THEN IF maze%(x+d,y)=Ø THEN c$=c$+"r"
85Ø IF y-2>Ø THEN IF maze%(x,y-d)=Ø THEN c$=c$+"u"
86Ø IF y+2<my THEN IF maze%(x,y+d)=Ø THEN c$=c$+"d"
87Ø c=LEN(c$)
88Ø RETURN
89Ø 'Print maze
9ØØ CLS
91Ø FOR f=Ø TO my
92Ø FOR g=Ø TO mx
93Ø q=maze%(g,f)
94Ø IF q=1 THEN PRINT " ";:ELSE PRINT CHR$(143);
95Ø NEXT g
96Ø PRINT
97Ø NEXT f
98Ø WHILE INKEY$<>"":WEND
99Ø LOCATE 17,25:PRINT "Press S to stop else any for
    another maze";
1ØØØ a$=""
1Ø1Ø WHILE a$="":a$=INKEY$:WEND
1Ø2Ø RETURN
1Ø3Ø 'Initialise
1Ø4Ø mx=Ø:my=Ø
1Ø5Ø WHILE mx<5 OR my<5 OR mx>79 OR my>23 OR mx MOD 2=Ø
    OR my MOD 2=Ø
1Ø6Ø CLS:PRINT "Enter width and height of maze seperated
    by commas, odd numbers only"
1Ø7Ø INPUT"eg 11,19. Must be between 5,5 and 79,23 :",mx,my
1Ø8Ø mx=INT(mx):my=INT(my)
1Ø9Ø WEND
11ØØ mx=mx-1:my=my-1
111Ø secs=mx*my/2Ø
112Ø IF secs<1Ø THEN PRINT:PRINT "The maze will be
    printed shortly"
113Ø IF secs>1Ø THEN PRINT:PRINT "Please wait about";ROUND
    (secs,-1);"seconds"
114Ø left=mx*my/4-1
115Ø e=5
116Ø IF mx<9 OR my<9 THEN e=1Ø
117Ø IF mx>9 AND mx>9 THEN e=Ø
118Ø DIM maze%(mx,my):bran=Ø
119Ø FOR f=Ø TO mx:maze%(f,Ø)=2:maze%(f,my)=2:NEXT f
12ØØ FOR f=1 TO my-1:maze%(Ø,f)=2:maze%(mx,f)=2:NEXT f
121Ø FOR f=2 TO my-2 STEP 2
122Ø FOR g=2 TO mx-2 STEP 2
123Ø maze%(g,f)=2
124Ø NEXT g,f
125Ø maze%(mx-1,Ø)=1
126Ø maze%(1,my)=1
127Ø x=mx-1:y=1:h=2:loop=Ø:cx=-1:cy=1
128Ø RETURN
```

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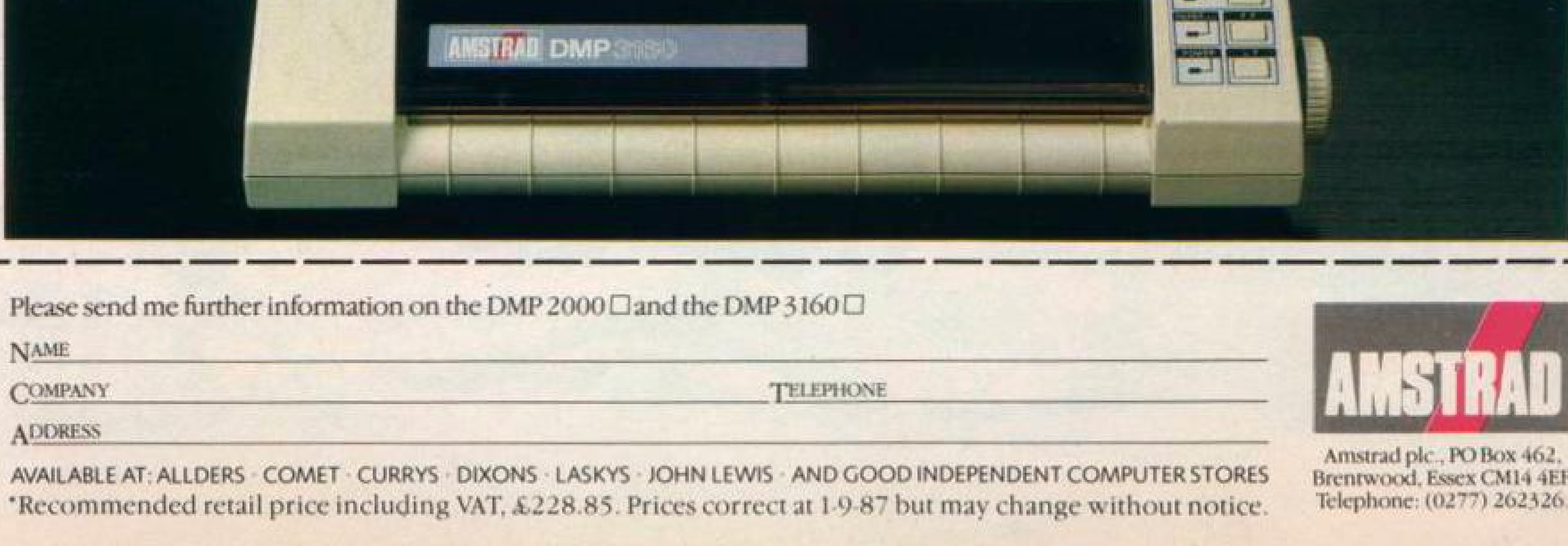


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AMSTRAD

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Printer buffer

Cy Booker from Tunbridge Wells has written an extremely useful program — a memory-resident printer buffer. A printer buffer stores characters sent to the printer until the printer is ready to receive further information. This prevents the computer "hanging up" during printing.

The buffer can be any length and positioned anywhere in memory. If you have an extra 64k you can use that.

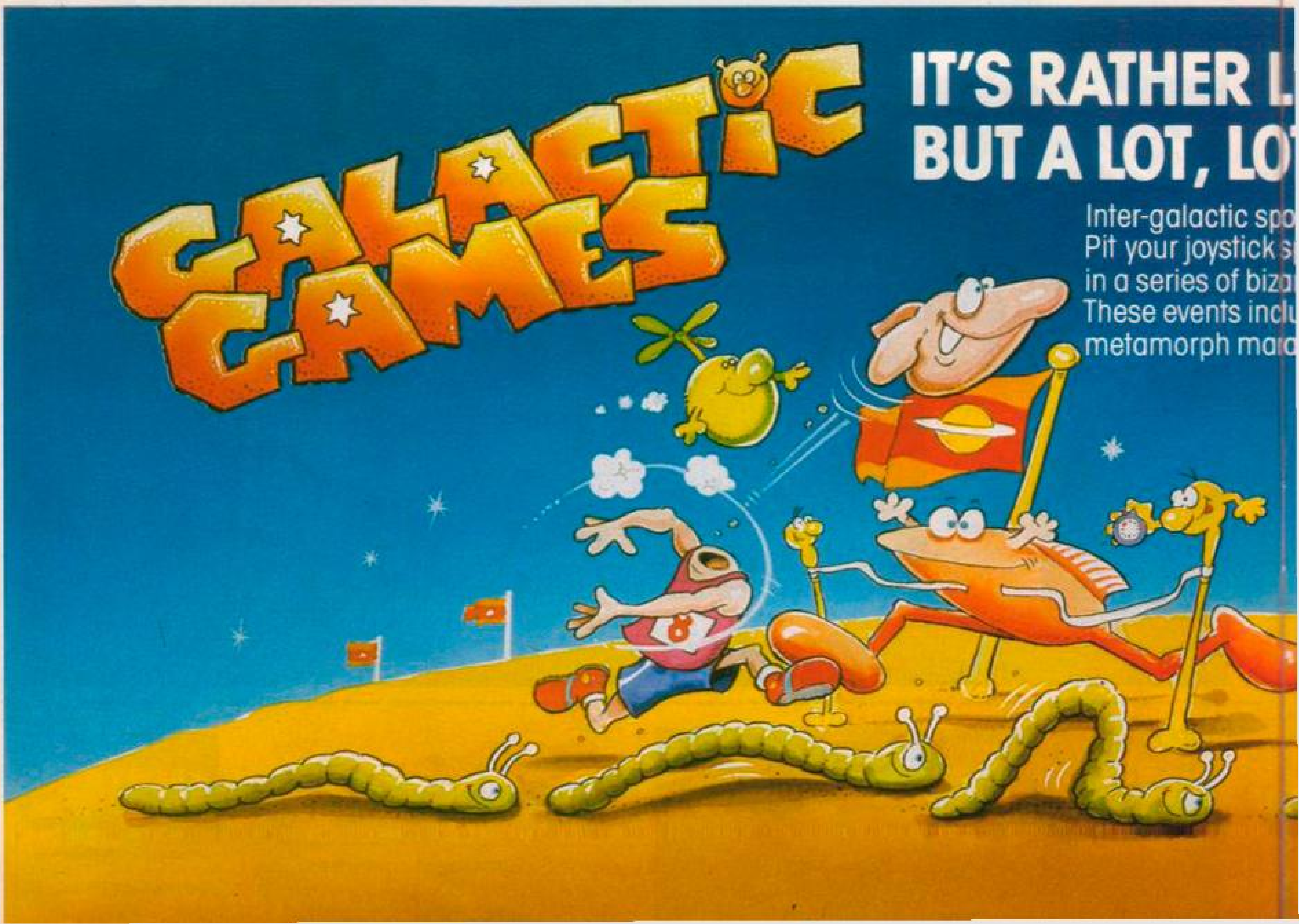
Running the listing gives Basic two new commands:

```
|PBUFF.ON, bank, start address, length
|PBUFF.OFF
```

The REMs contain enough information for you to set up a buffer of any length in the required memory bank.



```
1 ' Printer buffer
2 ' by Cy Booker
3 ' Amstrad Action  November 87
1Ø MEMORY HIMEM-&1F5: ' If first run then 'memory &AØØØ'.
2Ø addr=HIMEM+1:line.no=41Ø:FOR b=1 TO 8
3Ø PRINT "Checking block:",b:FOR a=1 TO 64:READ a$
4Ø byte=VAL("&"+a$):sum=(sum XOR byte)+byte
5Ø POKE addr,byte:addr=addr+1:NEXT a:READ check.sum
6Ø IF sum=check.sum THEN 8Ø
7Ø PRINT "Error in lines:",line.no,line.no+4Ø : STOP
8Ø sum=INT(sum/4) : line.no=line.no+5Ø:NEXT b
9Ø CALL HIMEM+1      : ' Relocate and initialise.
1ØØ MEMORY HIMEM+&9F : ' Claim back some memory.
11Ø PRINT "Now have 2 RSX's:-"
12Ø PRINT "|PBUFF.ON,bank,start address,length"
13Ø PRINT "|PBUFF.OFF"
14Ø IF HIMEM<&7FFF THEN PRINT "Don't use memory banks."
15Ø ' E.g. to reserve a 16K buffer do something like this:
16Ø ' length=16*1Ø24 : memory himem-length-1
17Ø ' |pbuff.on,Ø,himem+1,length
18Ø ' Or if have extra memory then:-
19Ø ' bank=7:length=16*1Ø24: length must be<=16K, bank>=4
2ØØ ' |pbuff.on,bank,&4ØØØ,length : ' Use all of bank 7
21Ø END
22Ø '
23Ø DATA ED,5B,3Ø,ØØ,21,E1,E9,22,3Ø,ØØ,F7,EB,22,3Ø,ØØ,21
24Ø DATA 2C,ØØ,19,E5,7E,23,B6,23,2Ø,FA,EB,E1,4E,23,46,23
25Ø DATA 78,B1,28,12,E5,D5,6Ø,69,19,4E,23,46,EB,Ø9,EB,72
26Ø DATA 2B,73,D1,E1,18,E6,E9,Ø1,ØØ,Ø4,ØØ,ØE,ØØ,11,ØØ,14
27Ø DATA 67ØØ
28Ø DATA ØØ,19,ØØ,1C,ØØ,1F,ØØ,36,ØØ,3B,ØØ,3F,ØØ,4A,ØØ,53
29Ø DATA ØØ,56,ØØ,59,ØØ,5F,ØØ,62,ØØ,6F,ØØ,73,ØØ,92,ØØ,97
3ØØ DATA ØØ,AØ,ØØ,A7,ØØ,AA,ØØ,AE,ØØ,B6,ØØ,B9,ØØ,BE,ØØ,C3
31Ø DATA ØØ,D1,ØØ,D4,ØØ,DD,ØØ,EØ,ØØ,E4,ØØ,E7,ØØ,EB,ØØ,F2
32Ø DATA 5963
33Ø DATA ØØ,F6,ØØ,FD,ØØ,Ø4,Ø1,ØC,Ø1,ØØ,ØØ,21,65,Ø1,11,CA
34Ø DATA ØØ,Ø1,FF,81,CD,EF,BC,AF,32,55,Ø1,21,15,ØØ,Ø1,19
35Ø DATA ØØ,C3,D1,BC,21,ØØ,C3,33,ØØ,C3,91,ØØ,5Ø,42,55,46
36Ø DATA 46,2E,4F,CE,5Ø,42,55,46,46,2E,4F,46,C6,ØØ,FE,Ø3
37Ø DATA 6412
38Ø DATA 21,1A,Ø1,2Ø,4C,3A,55,Ø1,B7,21,3F,Ø1,2Ø,43,DD,6E
39Ø DATA ØØ,DD,66,Ø1,22,5C,Ø1,DD,6E,Ø2,DD,66,Ø3,22,5A,Ø1
4ØØ DATA 22,58,Ø1,22,56,Ø1,DD,7E,Ø4,32,5E,Ø1,21,5F,Ø1,11
41Ø DATA Ø1,ØØ,42,4B,CD,E9,BC,3E,FF,21,55,Ø1,77,21,9F,ØØ
42Ø DATA 7Ø75
43Ø DATA 11,2B,BD,Ø6,Ø3,F3,1A,4E,77,23,79,12,13,1Ø,F7,FB
44Ø DATA C9,7E,E6,7F,CD,5A,BB,BE,23,28,F6,C9,3A,55,Ø1,B7
45Ø DATA C8,21,5F,Ø1,CD,EC,BC,AF,18,CF,C3,A2,ØØ,F5,D5,E5
46Ø DATA F5,2A,58,Ø1,CD,F9,ØØ,EB,2A,56,Ø1,A7,ED,52,28,F8
47Ø DATA 1Ø7Ø8
48Ø DATA 3A,5E,Ø1,CD,11,Ø1,F1,ED,53,58,Ø1,12,AF,CD,11,Ø1
49Ø DATA E1,D1,F1,37,C9,CD,2E,BD,3Ø,29,ED,5B,58,Ø1,2A,56
5ØØ DATA Ø1,A7,ED,52,28,1D,19,3A,5E,Ø1,CD,11,Ø1,7E,CD,F9
51Ø DATA ØØ,22,56,Ø1,F5,CD,72,ØØ,F1,CD,2B,BD,CD,72,ØØ,AF
52Ø DATA 1Ø385
53Ø DATA CD,11,Ø1,C9,23,E5,ED,5B,5A,Ø1,A7,ED,52,ED,5B,5C
54Ø DATA Ø1,A7,ED,52,38,Ø4,2A,5A,Ø1,E3,E1,C9,F3,D9,F6,CØ
55Ø DATA ED,79,D9,FB,C9,7C,5Ø,42,55,46,46,2E,4F,4E,2C,62
```



```
56Ø DATA 61,6E,6B,2C,73,74,61,72,74,2Ø,61,64,64,72,65,73
57Ø DATA 1134Ø
58Ø DATA 73,2C,6C,65,6E,67,74,68,ØD,8A,41,6C,72,65,61,64
59Ø DATA 79,2Ø,7C,5Ø,42,55,46,46,2E,4F,4E,27,65,64,ØD,8A
6ØØ DATA 48,65,6C,6C,6F,2Ø,61,6C,6C,2Ø,79,6F,75,2Ø,48,41
61Ø DATA 43,4B,45,52,53,2Ø,6F,75,74,2Ø,54,48,45,52,45,21
62Ø DATA 7715
```

Variable list

Mike Worsley of Fareham has supplied a useful listing for debugging Basic programs. You must run his routine first then load your own program. If you type the command |LVAR all the variables the Basic program uses will appear along with their current values. Say your program has an error in it and the message "division by zero" kept appearing. With Mike's routine you can list the variables and correct the offending one.

The program will work only with 6128 machines because Mike directly accesses the system variables and upper-rom routines. Can anyone come up with a 464 or 664 version?

```
1 ' Variable list
2 ' for 6128 only
3 ' by Mike Worsley
4 ' Amstrad Action    October 87
10 REM *** m/c loader ***
20 r=90: m=&A400
30 WHILE m<&A509
40 r=r+5
50 FOR i=1 TO 8
60 READ d$: d=VAL("&"+d$): POKE m,d: check=check+d: m=m+1
70 NEXT
80 READ d$: d=VAL("&"+d$)
90 IF d<>check THEN PRINT CHR$(7);"error in line ";r: END
100 check=0
110 WEND
120 CALL &A400
130 END
140 REM *** code data ***
150 DATA 21,09,A4,01,0D,A4,C3,D1,314
160 DATA BC,00,00,00,00,12,A4,C3,235
170 DATA 17,A4,4C,56,41,D2,00,2A,29a
180 DATA 68,AE,22,A0,A4,CD,49,A4,436
190 DATA CD,58,A4,CD,69,A4,2A,A0,46d
200 DATA A4,23,23,7E,F5,E6,7F,CD,48f
210 DATA 5A,BB,F1,CB,7F,28,F3,23,48e
220 DATA 7E,FE,02,CA,74,A4,FE,04,462
230 DATA CA,A2,A4,FE,01,CA,C2,A4,53f
240 DATA C9,2A,A0,A4,ED,5B,6A,AE,497
250 DATA 7C,BA,C0,7D,BB,C0,E1,C9,598
260 DATA CD,09,BB,D0,FE,E0,20,02,461
270 DATA E1,C9,FE,20,C0,CD,06,BB,516
280 DATA C9,3E,0D,CD,5A,BB,3E,0A,33e
290 DATA CD,5A,BB,C9,3E,24,CD,5A,434
300 DATA BB,3E,3D,CD,5A,BB,3E,22,378
310 DATA CD,5A,BB,23,46,23,5E,23,2ef
320 DATA 56,23,22,A0,A4,EB,7E,CD,415
330 DATA 5A,BB,23,10,F9,3E,22,CD,36e
340 DATA 5A,BB,CD,49,A4,C3,20,A4,456
350 DATA 00,00,3E,3D,CD,5A,BB,01,25e
360 DATA 06,00,11,9F,B0,ED,B0,22,325
370 DATA A0,A4,C3,D7,A4,00,00,00,382
380 DATA 00,00,00,00,00,00,00,00,0
390 DATA 00,00,3E,25,CD,5A,BB,3E,283
400 DATA 3D,CD,5A,BB,11,9F,B0,01,380
410 DATA 03,00,ED,B0,22,A0,A4,CD,3d3
420 DATA 00,B9,2A,71,B0,22,B5,A4,37f
430 DATA 21,C1,A4,22,71,B0,CD,BC,452
440 DATA F9,06,00,21,C1,A4,7E,2B,32e
450 DATA 04,B7,20,FA,0B,23,23,7E,2a4
460 DATA CD,5A,BB,10,F9,2A,B5,A4,46e
470 DATA 22,71,B0,CD,49,A4,C3,20,3e0
480 DATA A4,0,0,0,0,0,0,0,a4
```


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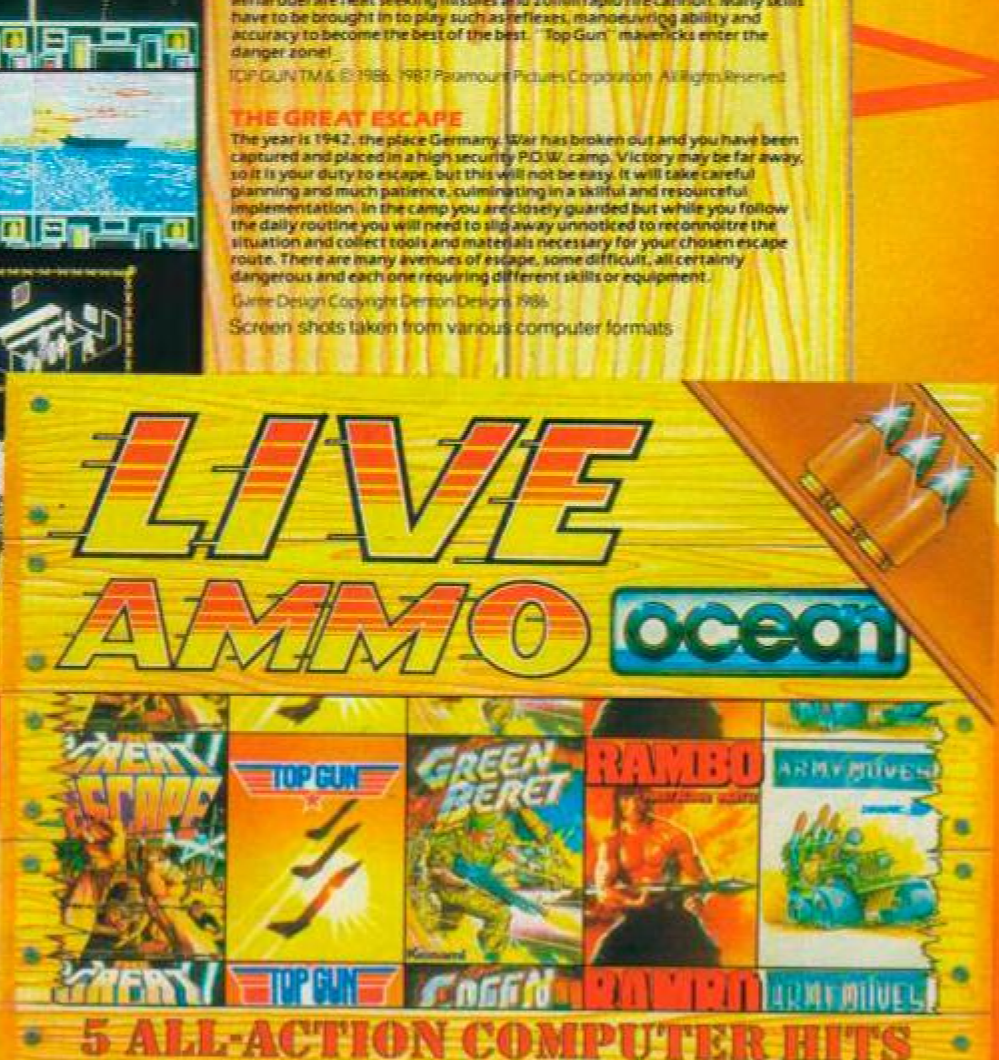
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THE GREAT ESCAPE

The year is 1942, the place Germany. War has broken out and you have been captured and placed in a high security P.O.W. camp. Victory may be far away, so it is your duty to escape, but this will not be easy. It will take careful planning and much patience, culminating in a skilful and resourceful implementation. In the camp you are closely guarded but while you follow the daily routine you will need to slip away unnoticed to reconnoitre the situation and collect tools and materials necessary for your chosen escape route. There are many avenues of escape, some difficult, all certainly dangerous and each one requiring different skills or equipment.

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The language C is relatively new and one which many people prefer to use. For one thing, there is a definite standard set out in Kernighan & Ritchie's book, "The C Programming Language". It is also fast in operation, almost up to low-level machine code speed, and yet is easy to write and debug (like high level languages which include Basic, Pascal and Cobol).

Arnor's implementation is packaged to their usual standard, and is supplied on a 3 inch disk together with a 200 page manual. This is split roughly in half, dealing with the various C programming modules — the compiler, linker, joiner and run time system — and then the editor in turn.

The manuals, descriptions and explanations of the programming language assume you already have a working knowledge of C. However, a bibliography of suitable books which can help a beginner to learn is supplied.

Now you C it

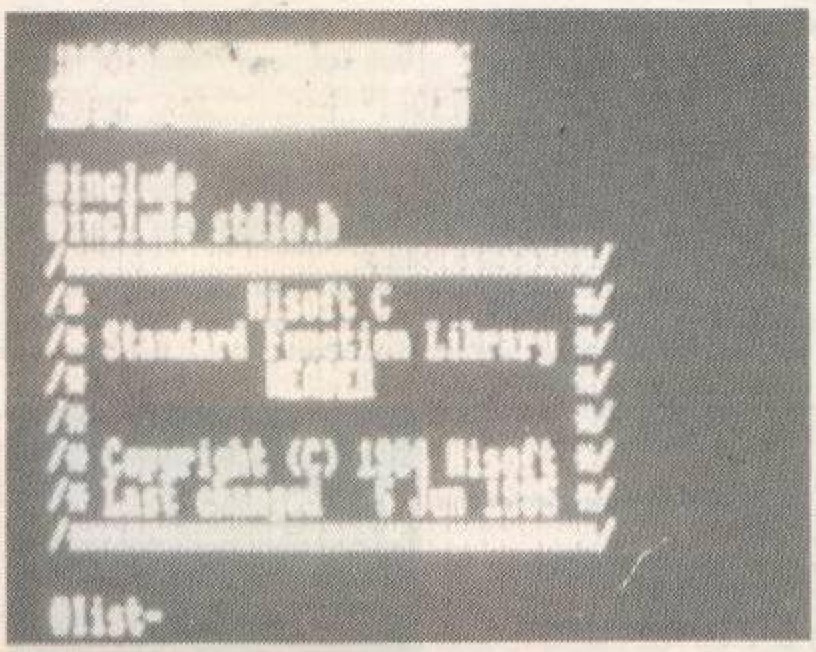
Arnor's Programming Editor (APED for short) is a cut down version of the highly successful word processor *Protext*, as used by the AA team. Not surprisingly, it is of an excellent quality for writing C source code.

Computers cannot understand programs as anything other than a series of number coded instructions: hence the term, machine code. Few people can grasp the meaning of these sets of numbers — this is the reason why computer languages were developed in the first instance.

Now high level programming languages come in two main types. First are the interpreters — these convert the human code (which a human can easily read) into machine code while the program is in operation. So you can write your program and set it going at once, stop it, edit it, then set it going again. The main drawback of such languages is their slow speed of operation.

Compiled languages do *all their human to machine* conversion before the program is run. This means that, although editing and debugging are slightly more difficult and time consuming to carry out, compiled programs tend to run much faster than interpreted ones.

Arnor C is quite an interesting hybrid of these types. It compiles programs to an intermediate code and then runs these programs with an interpreter.



● The HiSoft compiler

Protective details

The reason why I'm going into all this detail is that, if you write a program using Arnor C, to use it the interpreter must be on the disk with the program.

However, Arnor state that no programs may be copied except for the use of the programmer. So even if you use Arnor C to write an incredible piece of software you will have to refer to Arnor before you can sell it.

As C versions go, Arnor's is very complete. You may use fractions, and all the standard functions of C are included, as well as many extras tailored to the 6128 and PCW. The importance of this feature for using C programs written on other machines cannot be overstressed — it was why Kernighan and Ritchie sat down and wrote their book, so implementations of the C language would, by and large, be compatible.

In comparison with the established C compiler — HiSoft's — Arnor C is streets ahead in terms of programming power. The editor is also superior to that of Hisoft. Mind you, Hisoft C is generally twice as fast, due to the fact that it can only deal in whole numbers (at least in its present form). Code generated with the Hisoft C compiler is significantly more compact, and Hisoft C is compatible with the CPC 464, 664 and 6128 machines.

Final conclusions are these: Arnor C is aimed at those owning a CPM+ machine who want a full C language to do some heavy duty programming, possibly number crunching — probably the student or the business programmer. It is accurately priced, with a good, no nonsense manual and excellent editor. However, if you want to program on the CPC machines in general, taking full advantage of AMSDOS, then Hisoft C is your best bet.

Protext House, Wainman Rd, Peterborough, PE2 0BU
Arnor Ltd ☎ 0733 239011

GOOD NEWS	BAD NEWS
■ Compatible with K & R's standard, and hence C packages on other machines.	■ Beginners beware! Manual makes no concessions to you.
■ Editor is superb.	■ The interpreter is needed to run any C programs you may write.
■ Not overpriced considering the quality.	■ Hisoft C is cheaper, and in a few respects, better.

Small Business Booster

Two new packages for the small business, put through their paces by Richard Monteiro

Small Trader's Pack

SD Microsystems, £24.95 disk only

SD Microsystems, after receiving rave reviews for the Sinclair QL version of the *Trader's Pack*, has moved to the Amstrad market. The *Pack* is badged as an easy and cost-effective way of computerising a business. It is claimed to contain everything the small firm needs. Accounting, stock control, mailing list and a pack of utilities all under one roof.

A disk and A4-sized instruction manual (not a single sheet, as wrongly stated in last months news pages) make up the *Small Trader's Pack*. The manual has been created using a dot-matrix printer — it looks and feels amateurish. However, the layout is pleasing and concise, unlike certain "professional" packages. Unfortunately examples and an index are lacking.

From the ten-choice menu you may branch to any of the applications.



● The ten-choice menu

Invoice to sender

First on the list is the Sales Ledger. Simply put, a computerized sales ledger allows you to store information regarding sales transactions, for example, customer name, account number and so on.

The first task when using a ledger is to open customer accounts. Ledger has room for 100 accounts with a maximum of 500 transactions per month or quarter — not heavy duty, but should be sufficient for the self-employed person. An account can have a number between 0 and 99; a ten character identification tag is also allowed. Account 0 has been reserved for your use, the other 99 are for your customers.

Sale transactions are split into two groups: cash and credit. The date, account number, amount, invoice number, extra details, whether it is VAT rated and its category code (whether it for mail order, dealer...) are all required for both types of sale. When payment is received for an outstanding invoice, this too may be entered. If your goods aren't subject to the standard VAT rate (15%) *Pack* can be informed accordingly. If you make a mistake while entering a transaction you may edit or delete it.

Statements detailing sale type, date, invoice number and amount can be printed. Included is the number of transactions the customer has made and the amount outstanding — useful as a payment reminder.

There are other handy options which allow you to compute and display the total sales, receipts or balances due for all transactions, display the sum total of the accounts owed to you, alternate between disk and cassette operation and call up a VAT summary to aid you with returns.

Leave it out

The packaging states 6128 only, which led me to assume it required the extra 64k. Not so: the instructions proclaim 664 or 6128. What's wrong with the 464? Well, nothing actually. If you have a disk drive then there isn't anything stopping you using the package.

Buy, buy happiness

A purchase ledger is purely for keeping tabs on everything bought during the month. *Pack's* Purchase Ledger has a very similar layout to the Sale Ledger. In fact, you could be forgiven for confusing the two — the manner in which data is entered, results displayed and even the number of options available are identical.

To store names and address you must enter the Mailing List. Each file can store 200 records. An address comprises of a name (surname or company name), title (Mr, Miss D or Dr X), road, town, county, post code, phone number, additional notes, addressee (when addressed to a company this would be the contact name) and a sort code. Using a sort code means you can classify records into particular groups: mailing lists can be printed selectively (for example, customer, supplier or dealer).

There is a powerful option to locate or list a record or group of records. The search routine works on any file in the record so you can hunt for addresses which have Avon as their county or Mrs as their title. Once an address has been located it may be edited or printed. Of course, the complete address file can be alphabetically sorted or printed.

Oddly enough there is a separate section to store, edit and print telephone numbers. This seems unnecessary as the Mailing List is capable of holding the information.



● Stock Control keeps track of goods

Stock it to the limit

If you're running a small business then a stock control program is essential. The stock reference number, a brief description, unit quantity, supplier code, cost price, sale price, and stock level may be stored in Stock Control. Like the other applications editing (and in this case updating) and printing of a file is possible.

The remaining bits-and-pieces include a Unit Conversion Suite, Mini Calculator and a set of Disk Utilities. There is no documentation regarding the Unit Conversion bar its mention. It is simple to use and therefore needs

GOOD NEWS	BAD NEWS
■ The simplest to use package of its kind. ■ Has the lot. From Sales ledger to stock control. ■ Price goes down a treat.	■ Error-checking not perfect. ■ Press Esc and you lose all your data. ■ Can't hold an enormous amount of data.

no explanation. If you wish to convert gallons to litres, pounds to kilos, centigrade to fahrenheit or vice versa, then the Unit Conversion is the place to be — it does seem out of place in a business package but thoughtful nonetheless.

From the Mini Calculator you can perform simple arithmetic calculations. Nifty, but it would be more useful if it could be called up at any time rather than having to wade through a jungle of menus to reach it.

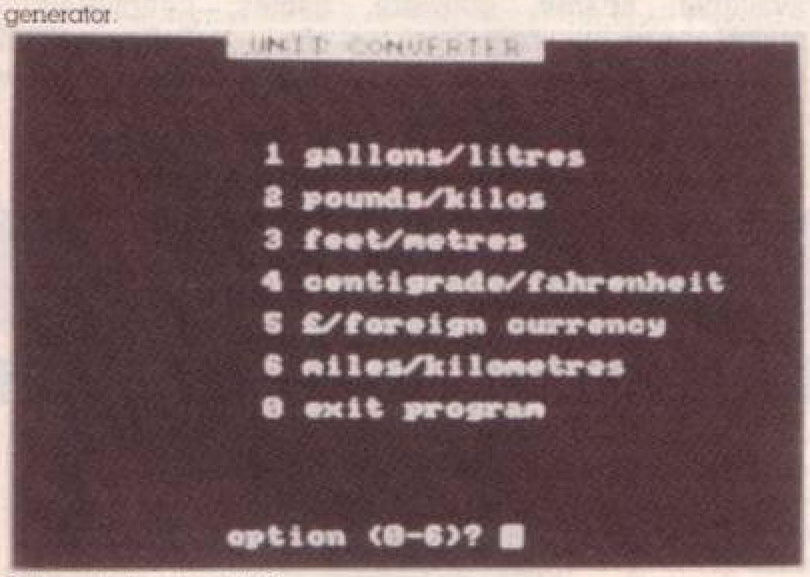
The disk utilities are very basic. Only offering cataloguing, changing of drive, erasing and renaming of files.

A gentle introduction to computerizing a business is guaranteed with the Small Trader's Pack. It may not have many of the powerful functions included in highbrow, professional software, but is so simple that the manual needn't be looked at. The software is written in Basic and, if you don't follow the straight and narrow, will crash. The limitations imposed by the small memory may prove a problem. If not, then the wealth of features at such a low price make it a good buy.

Sales Invoicer Pack

SD Microsystems, £14.95 (£9.95 if purchased with Pack) disk only

To complement the *Small Trader's Pack*, SD has released a package that lets you set up an invoicing system. It can be used on its own or with the *Trader's pack*. The *Invoicer* includes a sales ledger (identical to the one appearing in the *Trader's Pack*), sales invoicer and a statement generator.



● How many litres in a gallon?

Invoicer's function is to produce invoices and statements in print. It can be used either to store and print up to 100 names and addresses, or as an integrated accounts suite, with data being ported between various modules.

The same simple to get to grips with concept has been implemented in the *Invoicer*. A thin A4 manual briefly describes its functions. You are left to discover what can and can't be done.

Anything chosen from the main menu is loaded from disk. Nothing wrong with that, but if you remove the disk before picking an option, or even while it is loading, there is a chance you'll lose everything.

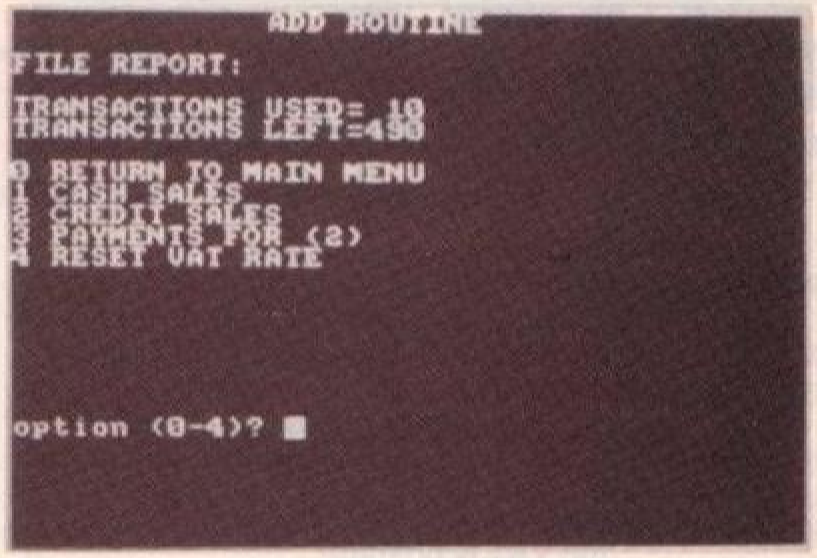
One in a million

The *Small Trader's pack* and *Invoicer* program haven't any real competition — at least not on the CPC machines. The closest rivals are the *Home Finance Program* (reviewed issue 22) and Database's *PlanIt* (see issue 18). Both are aimed at the small business or self employed person. But that is where the similarity ends. *HFP* and *PlanIt* are designed to curb your spending, or rather keep tabs on your cash flow. The *Trader's Pack* and *Invoicer* look after stock and keep records on the buying and selling of goods.

Open to offers

The Sales ledger is the same as the one lurking in the *Trader's Pack*, see that review for the details.

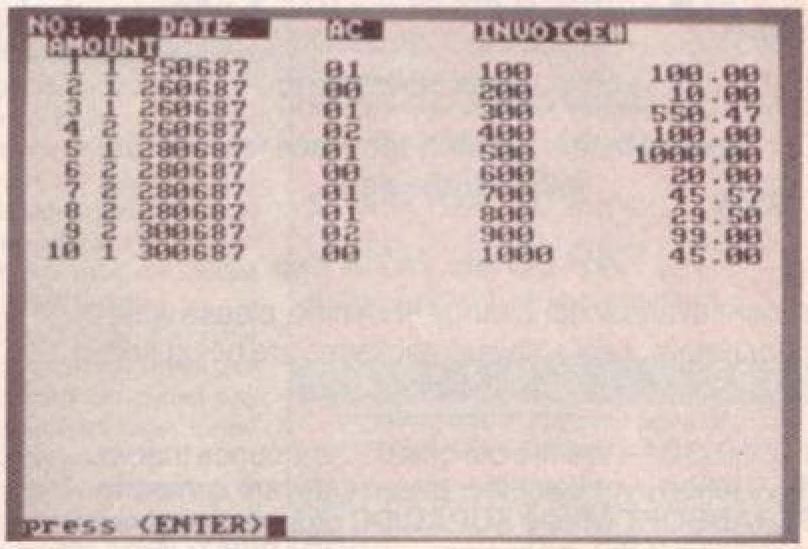
Customers names and addresses must be entered into the Sales Invoicer and ordered the same way as in the Sales Ledger — a pity the software can't sort this out for itself. Account names can be listed and entries altered. Your trading name can also be entered; on printing the company name is printed in double width and underlined which adds to the impact.



● Which will you go for?

The Sales Invoicer sub-menu, Raise Invoice, caters for the production of an invoice. Date, account number, invoice number, whether or not is VAT rated and a special category code are all required. Once the computer has received this information you are prompted for a description and price of the goods. A maximum of fifteen items per invoice is allowed. The invoice may include a footer — user definable — which could contain payment terms. Payable in 30 days, for example.

Statements may be printed. You can take data directly from the sales ledgers, no input is required. You may edit customer files before printing, although it is more likely and probably safer, if done from the invoicing program.



● You owe me £1,000,000

The other options in the *Invoicer Pack* include a disk utility and calculator. These duplicate the functions found in the *Trader's Pack*.

If you haven't got the *Trader's Pack* then the £14.95 asking price for the *Invoicer* is worthwhile. It is of questionable value, however, if you already own the the *Trader's Pack*. Even though owners of the *Pack* are offered a slight discount, too many functions are duplicated.

Invoicer is simple to operate, offers enough to the small business to be of use and comes with a well written manual. Error-checking and the poor amount of data it can retain being its shortcomings.

SD Microsystems ☎ 0462 675106
PO Box 24, Hitchin, Herts, SG4 0AE

GOOD NEWS	BAD NEWS
■ Simple to put into operation. ■ Reasonably priced if you haven't got *Trader's*	■ Poor error-trapping. ■ Limited by lack of memory space. ■ Has many features offered by Trader's Pack.

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ACTION TEST

This month software is pretty thin on the ground, hence the small number of Raves. It's due to software houses holding out for launches at the PCW show. That means that next month should be a bumper month for games and hopefully there'll be more Rave material amongst them.

This months Mastergame, Xor, is an unusual maze type game with devious puzzles to solve. The Raves are Scrabble De Luxe which has an increased dictionary of 20,000 words and World Class Leaderboard, the latest incarnation of the best selling golfing simulation.

There's also the game with the risky title of How to be a Complete ***** (go on, guess). Virgin may be getting some flak for this one.**

The observant amongst you may notice an H appearing in Gary's initials from this month. The reason for GB becoming GBH is unlikely to become clear now or in the future, but it's probably to keep pace with RpM and CJB. Anyone for four?

ROAD RUNNER

US Gold, £9.99 cass, £14.99 disk, joystick or keys

Last month had several games based on cartoon series and this month *Road Runner* joins them in another arcade conversion. Road Runner does his best to outwit the ever hungry Wile E. Coyote, who is partial to Road Runner and chips.

As Road Runner you have to beep, beep your way across four different levels of right-to-left scrolling arcade action. The four levels are loaded one at a time from cassette or disk. You have to collect seed which lies on the road,



Wile blown up by a cannon ball.

while avoiding Wile and the many other hazards in your way. If miss five piles of seed during a level then you will faint and lose a life.

Wile E. Coyote tries to catch you by using gadgets from the Acme company, in the same way that he did in the cartoon series. On the first level he chases you on foot. On level two he chases you on the back of an overgrown firework and on a pogo stick. Level three has him back on foot. Level four has the crevasse, where Wile flies after you with a jet-pac on and throws dynamite at you. If Wile is not using another gadget and he's left so far behind that he disappears off the screen, then he puts on a rocket powered skateboard and uses that to catch up with you.

The game features hazards which can kill either you or Wile. Bonus points are scored for Wile being killed. The first level only has trucks on it, which drive on from the left hand side of the screen. Later levels introduce the other hazards of mines, boulders, crevasses and cannons. Mines explode killing whoever steps on them, boulders and cannon balls kill whoever they hit. All three of these hazards, and the dynamite thrown by Wile, leave a tastefully charred body on the screen if they hit.

Crevasses have to be jumped otherwise you lose a life, and they're particularly difficult when dynamite is being lobbed at you. Things aren't all bad, lemonade causes you to stop while drinking it, but also gives you bonus points. Whenever you lose a life you are taken back towards the start of the level by Wile, but thankfully not always right the way back.

Each of the four levels of the game have different scenery. After the fourth level the scenery returns to level one, but this time there are extra hazards. The first level has a short cut which can be used when restarting a game to reach the last level that you were on . Bonus lives are awarded every 10,000 points.

There's good use of colour in the game although the actual playing area is small. The scenery scrolls smoothly and the sprites are clearly identifiable. There are no tunes in the game, but the spot effects are good.

The game has a lot of the atmosphere of the cartoons, but it is let down by poor collision detection. Another minor irritation is that if both you and Wile are killed at the same time, Wile always recovers first and you lose a life. Not a classic, but bound to provide many hours of fun.

GBH

The Verdict

GRAPHICS 83%
- □ Nice how a charred remains are left if you or Wile explode.
- □ Smooth scrolling.

SONICS 52%
- ■ Only spot effects.

GRAB FACTOR 78%
- □ Great fun trying to get Wile killed...
- ■ but frustrating when he drags you back towards the start of the level.

STAYING POWER 70%
- □ Things get difficult after only a couple of levels.
- ■ Only four basic levels to travel along.

AA RATING 74%
- □ A good game which could have been excellent with a bit more work.

FIRST DAY TARGET SCORE
Complete the first four levels.



A jet-pac equipped Wile tries to blow up Road Runner.

SECOND OPINION

The animation is delightful — little leggies whizzing around at high speed. The gameplay's a lot of fun but it can't be described as difficult by any means. The only really testing part is getting over the crevasses. It captures much of the flavour and atmosphere of the cartoon, but once that wears off you'll find it gets repetitive. **BW**

GREEN SCREEN VIEW

No problems beeping away in green.

WORLD CLASS LEADERBOARD

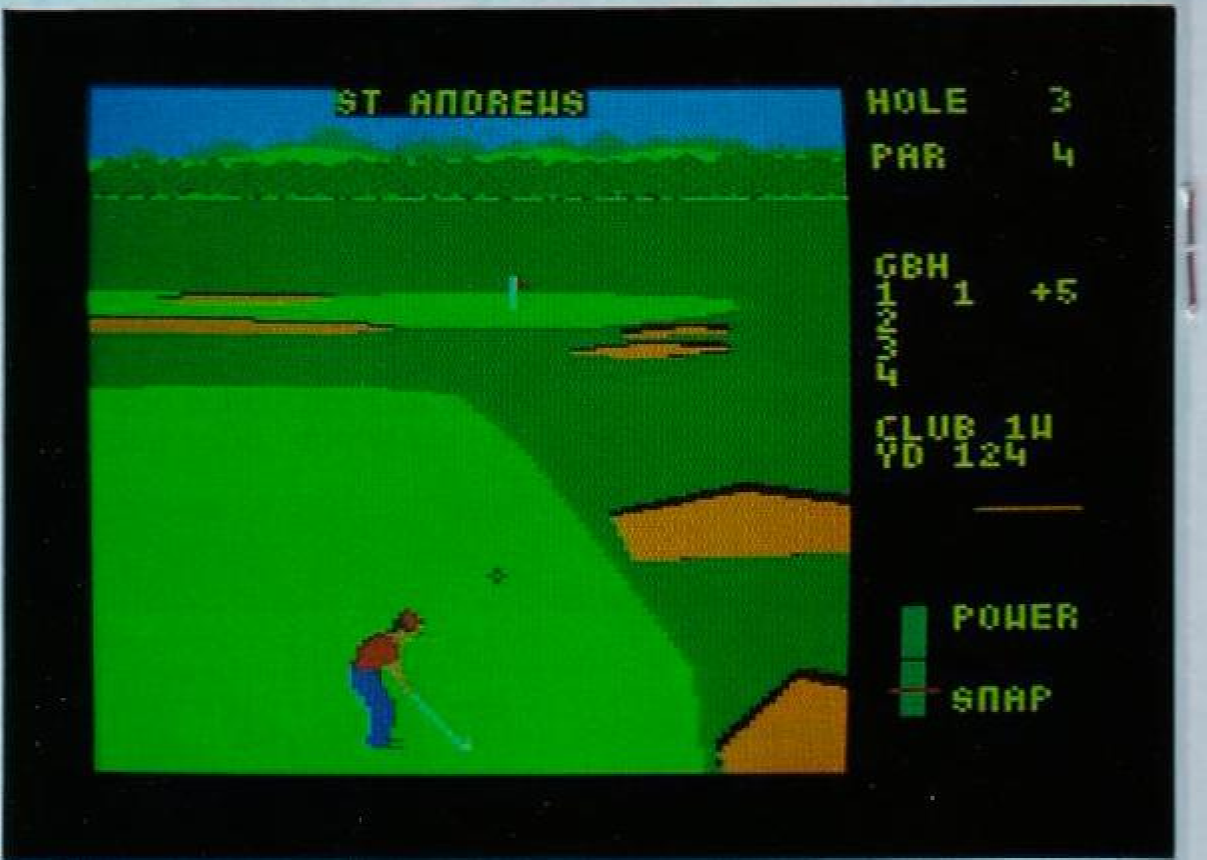
US Gold, £9.99 cass, £14.99 disk, joystick or keys

Here it is, the long awaited *World Class Leaderboard*. Could they improve on the previous versions? I thought so, and they have. The changes are vast. So read on.

The tape version doesn't have practice putting or driving, the disk version has. The data for each hole is loaded separately. This makes for difficulties when rewinding to hole one. There are three different skill levels: Professional, Amateur, and Kids. The differences between the three skill levels effect play on both the fairway and the green.

Wind effects only the Professional, whilst "snap" effects both Professional and Amateur. Kids level is effected by neither of these. On the putting green the professional does not have the advantage of the power bar, though the amateur and kids get the bar, but not the distance indicator which usually surrounds it.

The basic game mechanism is the same as in the previous incarnations. You choose a club, from a collection of woods, irons and wedges, based on the distance required and wind direction. You then have to aim the shot, and determine its power and spin (hook or slice) by timing the swing and the snap of the wrists. Once you've reached the green you automatically switch to a putter, and a slope indicator effectively replaces the wind in altering the shot direction.



Trees, bunkers, rough — just don't get lost in them.

The other differences are in the drawing of the holes. This version has rivers, bunkers and trees. Wow! Thankfully these additions are not drawn as slowly as the previous versions, they seem to be drawn faster. At last there are fairways and rough. The holes actually look like real golf holes, and they've kept the great animation of the little golfer at the bottom of the screen. They have also kept the system of

Are you horrible enough to go on the



redrawing the hole from the golfer's eye view.

If your shot happens to hit a tree, the ball will drop like a stone to the floor — realistic eh? I can't tell you what happens if you land in the water because I was never bad enough to land in a river, he says shining his finger nails on his shirt.

One nice new addition is the ability to view each hole from overhead before playing a stroke. This gives much more detail than the old instruction diagrams and gives you a much better feel for the course.

SECOND OPINION

I've always been fond of golf games, even that old fogey Amsgolf, so naturally this is a great favourite of mine. The additional features turn what was a good game into a classic. The gameplay hasn't really changed but the overall feel of the game is much more realistic. If you've already got Leaderboard it's cèrtainly worth a look, and if you haven't got a golf game yet then this is the one to get your mitts on. **BW**

GREEN SCREEN VIEW

Not great, but playable.

You know those little annoyances that seem to creep into most games? Well, guess what? There are a few in this. You know what it's like, you've played what seems to be a superb drive when suddenly the wind grabs it and it heads for the rough. Your blood boils and you reach for your three iron. You address the ball hurriedly with the intent of smacking it halfway around the globe. You lift the club, wind up all the strength in your body and — wack! You smite it a mighty blow, taking most of St Andrews with it. As the ball moseys slowly over the rough you congratulate yourself on a perfectly judged shot, expecting it to land somewhere up the fairway. Suddenly, to your horror, the ball increases in speed as soon as it starts to fly over the fairway. Before you faint, you see it shoot past the green and embed itself in the trees.

Well it's a great game with the best graphics from a golf game yet to cover Arnie's eyes. So it's got good gameplay with bags of appeal for the whole family. It's easy to get into and yet it still allows for a harder game. It has nice animation of the little golfer at the bottom of the screen and it redraws every screen from his eyes. It has trees, bunkers, rivers, fairways and rough. If U.S. Gold bring out another one, I don't want to review it. Just save me a copy to play please! **CJB**

The Verdict

GRAPHICS 86%
- ☐ Trees, bunkers, rivers, rough and fairway.
- ☐ Drawn very quickly.

SONICS 22%
- ■ The same old kchs and clicks.

GRAB FACTOR 85%
- ☐ New courses to get to grips with.
- ☐ New obstacles to overcome.

STAYING POWER 87%
- ☐ Three skill levels to keep you going.
- ■ Tedium ad infinitum to rewind the tape to hole one.

AA RATING 84%
- ☐ The best of the lot.
- ■ Please, no more variations.

FIRST DAY TARGET SCORE

Go round in par at Kids level.





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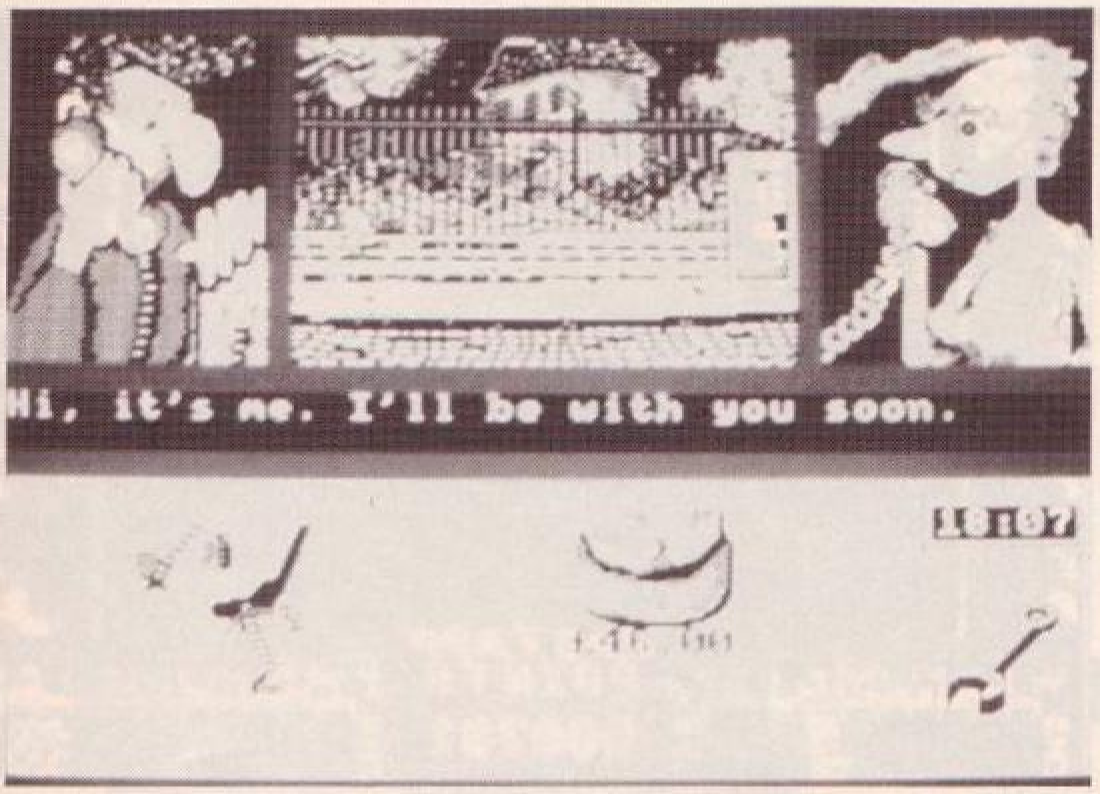
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SIDEWALK

Infogrames, £9.95 cass, £14.95 disk, joystick or keys



Hanging on the telephone.

The latest game from Infogrames is unusual in that it is in monochrome. Some software houses do this by accident when converting Spectrum games, but this time it's deliberate and indicative of the current innovative nature of French software. But is it any good to play?

In this adventure type game, you have to recover the parts of your stolen bike and buy some tickets for a concert, before your girlfriend goes without you. The screen is split into two areas. The top part shows your view of the part of town that you are in, and the bottom shows you how much of the bike you have collected.

If you meet anyone while wandering around town you'll be given a choice of three things to do: fight, talk to them or run. Talking to them gives you a choice of several things to say. These either gain you useful information or insult whoever you are talking to, causing them to attack you. This would seem to be for those who like a good argument to warm them up for a fight.

Parts of the bike have been distributed between the low-lifes in the town. They can be relieved of anything that they are carrying by beating them up — very subtle. Beating people up is done in the same style as most combat games, whereby you can perform a number of fighting moves. These include a head-butt, punch or kick.

When in combat two beer glasses appear on screen, one yours, the other your opponents. The level of beer lowers each time you're hit and the one who runs out of beer first, loses. The winner gains whatever the loser was carrying. If you are hit when you have no beer left in the glass then you die and have to start again. Beer can be regained by going to the bar and topping up on your favourite pint, which is free! (my kind of pub).

At the start of the game you have £50 and this increases or decreases according to your actions. You must have enough money to buy the tickets for the Band Aid concert which you are going to with your girlfriend, or she's going to be very upset.

At any time you may visit the telephone box to call your girlfriend and reassure her that you will be there soon. If you have not reassembled your bike, picked up the tickets and picked up your girlfriend by 7.30pm then she will have gone with John.

The graphics are black on white and are high resolution. The detail on the graphics is good, particularly the close-ups that you get of the people you meet. The streets are well designed too but the animation during combat is not very good. Different tunes are played according to what you do in the game: tunes for winning or losing a fight, running away and entering certain locations.

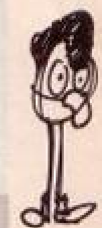
The game is original in many respects and the graphics are good even if they are monochrome. The thing that makes the difference with this game is the music which really does add some atmosphere. **GBH**



My luck appears to be out.

FIRST DAY TARGET SCORE

Collect 3 bits of the bike



SECOND OPINION

Here we have another French game that is packed with original ideas and concepts. Unfortunately it's still lacking in that crucial element — gameplay. It will certainly keep you amused for a while but the task isn't tough enough. It really needs a bigger playing area and more tasks to make it a better game.

BW

GREEN SCREEN VIEW

With two colours, what problems could there be.

The Verdict

GRAPHICS 75%
- □ Detailed graphics.
- ■ Only in black and white.

SONICS 87%
- □ Great tunes played throughout the game.
- ■ Spot effects are plain.

GRAB FACTOR 73%
- □ Original and unusual game.
- ■ Difficult to play until you know what you are doing.

STAYING POWER 66%
- ■ Repetitive game play.
- ■ The town is quite small and there are not many people in it.

AA RATING 70%

- □ An original game, which is a change.

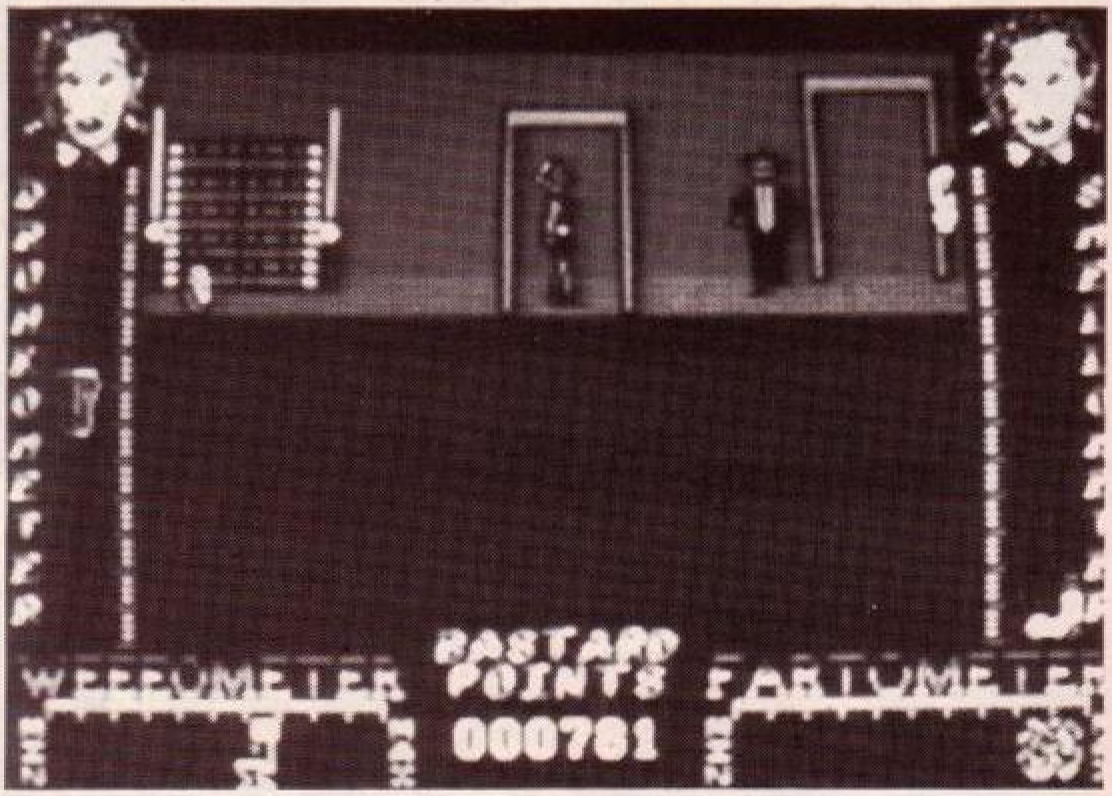
Take a walk on the wild side

HOW TO BE A COMPLETE BASTARD

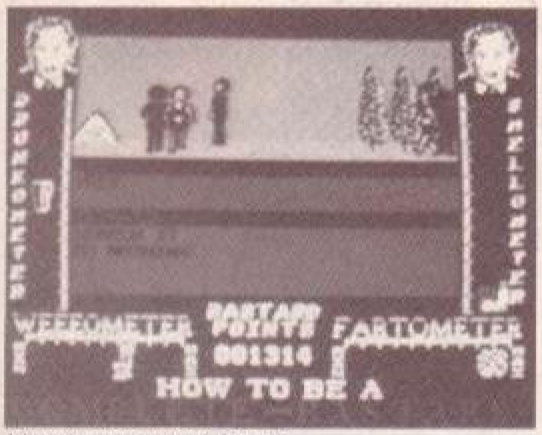
Virgin, £8.95 cass, joystick or keys

Anyone likely to be offended by bad language and gutter humour should skip this review and go straight to the Ratings box. Everyone else obviously had a mis-spent youth and can carry on reading, making schoolboy sniggers in all the right places.

Fans of the Young Ones TV series will undoubtedly remember Adrian Edmondson who played Vyvyan. Last year he published a book with the refreshingly down to earth title "How to be a Complete Bastard". Now, in similar vein, we have the game. You play a character by the name of Ade who has gatecrashed a yuppie party. Being your usual obnoxious self you decide to drive everyone away from the party by doing nasty things to people.



Ade prepares to do his poltergeist act



Ade prepares to water the garden

The screen is in two main parts which are the -ometers and the room display. The room display is split in two windows and is described as Bastavision. This allows you to see the room from two different angles. The view in each of the windows can be rotated so that you could have the same view in both windows, but that would be pointless — much like the game.

Around the playing area are four meters which are the drunkometer, weeeometer, fartometer and smellometer. These all start the game at zero and build up according to your actions.

You start the game in hallway and move around under joystick control. In every room there are objects which you can do various things to — most of them not generally recognised in polite society. To do something you walk into the object and, while still holding down the direction key, you press fire. A menu will appear from which you can choose an option. By doing bad things you score points, and if you do something really nasty to a guest, then he/she will leave the game permanently. This causes one of the letters at the bottom of the screen to light up, a sign of true bastardliness if ever there was one. The nastier you are the more letters that will light up.

The letters light up if you do something like put itching powder down someone's back, but the light will go out again after a while. To complete the game all of the letters must be lit up at the same time.

You can only carry two objects at a time while playing the game. The matches and the hammer can be used destructively and these are two of the objects that can be used many times.

The guests and you are plain looking, poorly animated and move around slowly. The rooms are drab and uninteresting with little more interesting than changes in the wallpaper. There is a good title tune, but in game sound is restricted to bodily emissions of a gaseous nature — blimey, nobody smoke. A small tip here, don't blow off in the kitchen or you'll become part of Ronald Reagan's Star Wars project.

Juvenile humour is basically what this game is all about and in that it does its job well.

SECOND OPINION

Well I must admit I laughed my condoms off at first. Finding a condom and being given the option to put it on my head, is not something I've done before. However, once you've made a few giggle stricken discoveries it does get tedious. A few comical graphic effects, speedier gameplay and more sophisticated humour wouldn't have gone amiss. It might give you a few laughs and it's the only game where I've ever turned into a gas cooker, but generally it's pretty forgettable.

BW

GREEN SCREEN VIEW

*You can be a b****** in green too.*

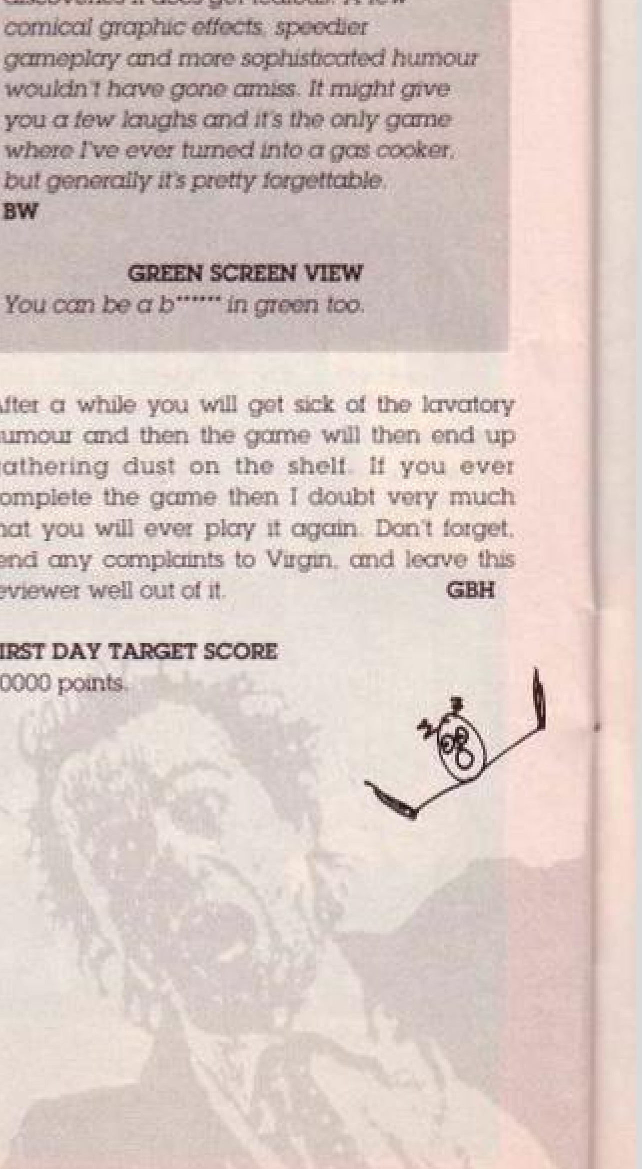
After a while you will get sick of the lavatory humour and then the game will then end up gathering dust on the shelf. If you ever complete the game then I doubt very much that you will ever play it again. Don't forget, send any complaints to Virgin, and leave this reviewer well out of it.

GBH

FIRST DAY TARGET SCORE

20000 points.





Bite Neil, he's strawberry flavoured

The Verdict

GRAPHICS **57%**

- □ Objects and scenery are detailed.
- ■ Characters are uninteresting and poorly animated.

SONICS **47%**

- □ Good title tune.
- ■ Phhhhthhhaaaaaarp!

GRAB FACTOR **68%**

- □ Great fun being absolutely disgusting.
- ■ The nature of the game may cause problems.

STAYING POWER **50%**

- □ Fun for a while.
- ■ This sort of humour gets tiresome very quickly.

AA RATING **66%**

- ■ A fun game but a bit more to do would



SCRABBLE DELUXE

Leisure Genius, £15.95 6128 disk only, keys only

Over a year ago Leisure Genius brought out a computer version of the old favourite board-game *Scrabble*. Now there is an enhanced disk only version available for the 6128.

Scrabble is a word game for two to four players, in which any of the four players can be computer or human controlled. Each player has a rack of seven letters from which he must make words to place on the board. The letters have different tile values which range from one for the vowels and more common letters to ten for Q and Z.



On the board there are five types of square: normal, double letter, triple letter, double word and triple word scores. The double and triple letter squares multiply the value of the particular letter placed over it. The double and triple word squares multiply the score of the whole word. The normal squares have no effect on the scoring.

When a word is placed on the board the computer checks if it is in its dictionary. If it's not it challenges you as to whether or not it is a valid word. Answering in the affirmative results in the computer accepting the word — very generous of it. This reliance on your honesty means you can beat it hollow by making up words like ZAQHYER, but who wants to pay £16 just to get a superiority complex over a lovable CPC?

The updated version has an increased vocabulary of over 20,000 words, eight computer skill levels and a clock option. Skill levels five to eight scan through more of the vocabulary and often produce obscure words which you will probably never have heard of. I mean honestly, who ever heard of "ae", "ee", "odyl", "oy", "oo" and suchlike?

The clock option allows a time limit to be set for how long you and the computer have to place a word. The time limit can be anything from one second to one hour. The trouble is that once set you've got to keep with it — a much easier task for the computer than for you.

If you get bored of waiting for the computer to choose a word you can force it to play whatever it's thinking about at that moment. If you are really stuck you can ask the computer to give you a hint. It will scan your letters and the dictionary looking for a suitable word.

The game can be saved for play later via the quit option. There are only two colours on screen at any time. Shading is used to differentiate between the double and triple squares, but they do look different enough from each other to allow things to be clearly seen. There is no sound at all, but in a game like this, it's not necessary.

Scrabble worked fine on the CPC 464 with 64K ram expansion. The thing that irritates me most about it is that you have to tap away on the cursor pad when you're trying to position your word, rather than having auto-repeat on the keys. If you like *Scrabble* and have trouble getting enough people to play it, then this game is for you. The computer opponents are tough at high levels and will give you a good game. The game is good, but expensive at sixteen pounds. **GBH**

The Verdict

GRAPHICS 17%

- □ Everything is clear.
- ■ but there aren't any graphics really.

SONICS 00%

- ■ The only sound is the swearing as the computer plays another word which you have never heard of.

GRAB FACTOR 68%

- □ Solitary Scrabble fans will love it.
- ■ Not very attractively presented.

STAYING POWER 86%

- □ Eight levels of difficulty.
- □ Can also play with up to four people.

AA RATING 77%

- ■ A good game, but very expensive.

FIRST DAY TARGET SCORE

Beat computer on level four.

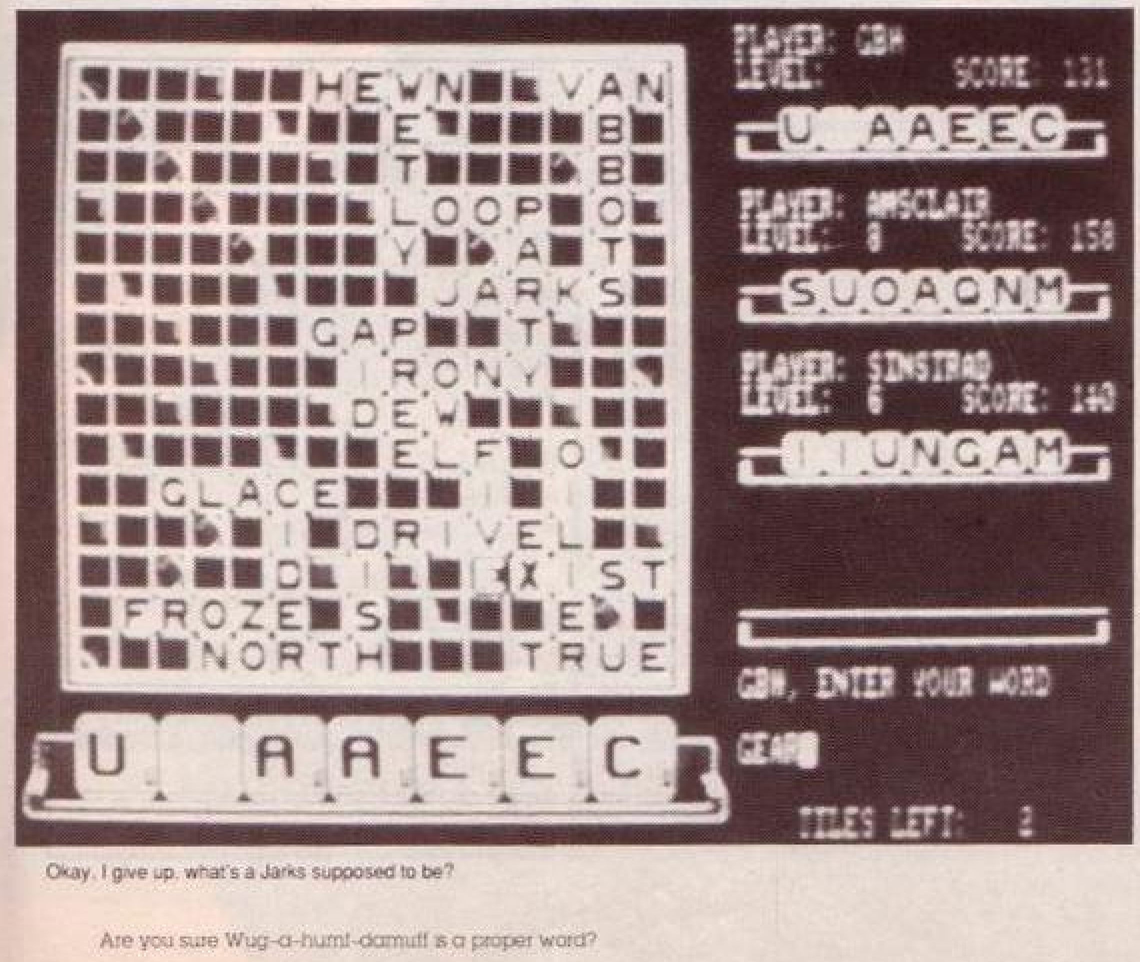
SECOND OPINION

I've always enjoyed a good game of Scrabble, so it was nice to be able to take on a computer opponent. It's a little disappointing that they didn't make more use of colour coding on the board and that it's so expensive, but that may not worry the enthusiast. Ideal for one or more players, but if that computer puts down "oy" one more time I'm going to have Qozkix on a triple word square.

BW

GREEN SCREEN VIEW

It looks the same in green as it does in colour.



Okay, I give up, what's a Jarks supposed to be?

Are you sure Wug-a-humf-damuff is a proper word?

ARMAGEDDON MAN

Martech, £12.95 cass, £19.95 disk, joystick, keys or mouse



You play the Supreme Commander in the year 2023. You have the task of not only keeping the peace between the 16 countries of the world, but also achieving good working relations with them, while keeping military and economic stability. A tough task which demands much thought but few quick responses! Not a game for action addicts.

The screen is split into a map and an icon area. The map covers the whole world. The icon area contains six icons, the first of which is the information icon. This option allows you to view the levels of food, resources and missiles that each of the 16 countries has. By doing this you can see which countries you should send directives to.

The communication icon allows you to look at letters sent to you from other countries. You can also send directives from here. A directive might be to ask Canada to send 10 resource units to China, or for a country to build up its missile stocks. They won't always agree, you can but try.

The satellites icon allows you to place satellites in geostationary orbit around the world. The satellites are either "Big Bird" recon sats, or "SDI" Laser sats. Recon sats keep an eye on countries, while SDI sats can lessen the effects of a nuclear attack if it happens. The Radio icon allows you to search the air waves for transmissions from other countries.

The UNN forces icon lets you send armies into any country. This can have a quieting effect, but you don't overstay your welcome.

The Verdict

GRAPHICS 56%
- □ Clearly defined icons and map.
- ■ No animation and few colours used.

SONICS 38%
- ■ Nothing fab.

GRAB FACTOR 66%
- □ Six options to use.
- ■ Seems aimless at first.

STAYING POWER....... 73%
- □ Difficult to keep the peace.
- □ War strategy is needed too.

AA RATING 61%
- □ A good strategic wargame.
- ■ Very expensive

Altogether, I found this game quite interesting. There is little action, but at least the reactions are realistic. It's really like a game of chess, with the future of the world depending on it. Lifelike? Possibly. Anyway, I like it, but rarely feel in the mood to tax my brain against 16 countries intent on Defcon 5. **CJB**

FIRST DAY TARGET SCORE
Decipher a message.

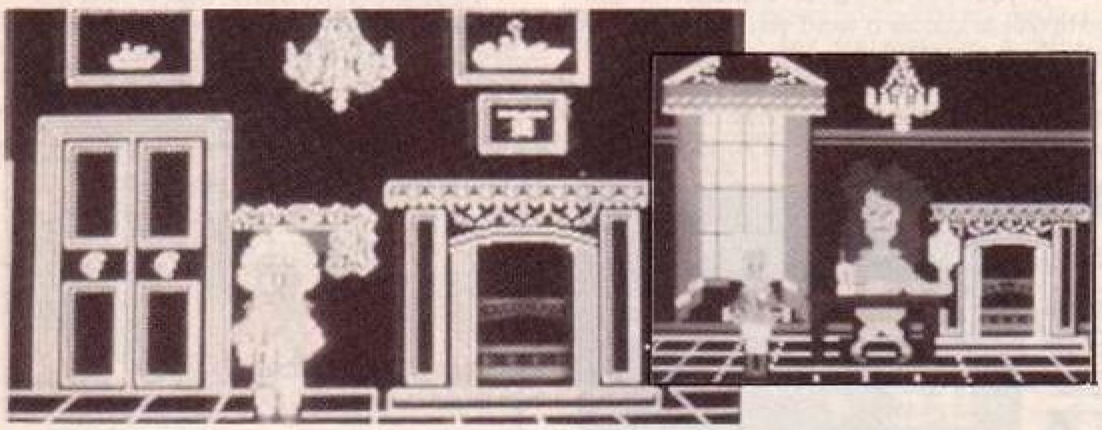
SECOND OPINION

My hopes were high for this one, it sounded just my cup of tea all this high powered diplomacy. There were certainly plenty of options and I enthusiastically tried to solve the worlds problems. However, you don't seem to get much positive response from your actions. It is possible to get somewhere in the game, but I would have appreciated a good action being more clearly recognised and rewarded. I suppose it's realistic in the way you're not always sure you've done something right or not, but that's its major problem for me. **BW**

GREEN SCREEN VIEW
No difficulties.

FLUNKY

Piranha, £9.95 cass, £14.95 disk, joystick or keys



This is certainly a new idea for an arcade adventure, but one which I found boring and difficult, not only to get into, but also to keep interest in.

You play the part of Flunky – a weird name – the dogs body of Buckingham Palace. The other characters consist of Andrew, Fergie, Charles, Di, HRH The Queen, and some other nondescript guards and the like. The object of the game is to get the autograph of each member of the Royal family.

Like the first part of *Short Circuit*, obtaining different things helps you complete the task. The royals will order you to do certain things, which you must do in order to be able to get their autograph. The tasks are varied and difficult, most of the family req uiring objects that you'd associate with them.

My biggest criticism is that most of them you will do through guesswork alone, or by trying everything imaginable. It's this sort of thing that I detest. Mainly because I have a short concentration span for mindless things.

Graphics are pretty poor, with little variation and nothing above average to mention. Sound is lifeless. Like I say, the game is hard to get into, but who knows? You might like it if you have the patience of a saint and the will of an iron bar. Not my type of game at all I'm afraid. **CJB**

SECOND OPINION

Large graphics and an unusual game, but unfortunately there is not much gameplay. The tasks are quite tricky to complete, but I couldn't find enough to keep me occupied. A nice idea which fails miserably as a game.
GBH

GREEN SCREEN VIEW
Everything is clear in green.

FIRST DAY TARGET SCORE
Get instructions and radio control.

The Verdict

GRAPHICS 51%
- □ Quick and easy movement.
- ■ Single colour characters.

SONICS 12%
- ■ Boring!

GRAB FACTOR 53%
- □ Interesting task.
- ■ Takes a while to find anything.

STAYING POWER....... 57%
- □ Difficult to complete.
- ■ Too frustrating.

AA RATING 53%
- ■ Unfulfilled potential I'm afraid.

I could do with a good flunk

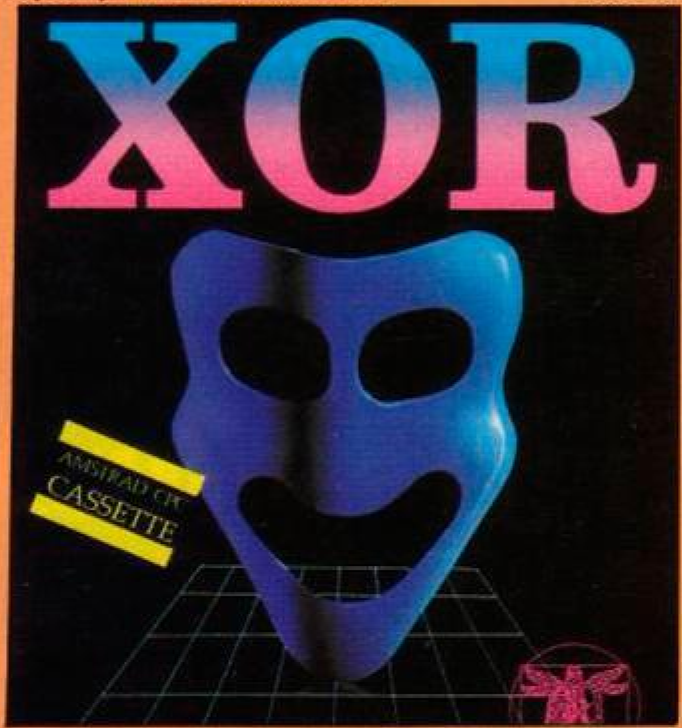


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XOR

Logotron, £9.95 cass, £14.95 disk, joystick or keys

Logotron are a new name to the Amstrad games scene, but they look set to ruffle some feathers with a game all about chickens, fish, bombs and dollys. Until now they've been best known for the Pendown word processor, so this marks quite a departure for them and hopefully it will be a succesful one.



Xor is an unusual maze type game in which you control two shields, Questor and Magus, in an attempt to reveal the identity of *Xor*. He is revealed when all of the fifteen levels of the game are completed. You get the idea of how fiendish the game's going to be from the level names: "Henry's Anguish", "Explosive Mixture", "Dollys Revenge", "The Challenge" and "Razors Edge" are just a few.

On loading you are presented with a menu which allows access to the 15 levels of the game. The playing area is a four way scrolling maze and on each level you have to collect all of the masks which are hidden in the maze. Your task is hampered by the many hazards and puzzles that have to be worked through.

The hazards are forcefields, chickens, fish, dolls, bombs, transporters and switches. They all have different movement logics and effects, which have been combined into wickedly complicated puzzles. These get tougher as you progress through the levels, until they reach quite extraordinary levels of interaction needing many hours of experimentation and thought to crack.

The forcefields are of two types, vertical and horizontal. The vertical are only removed by vertical movement and the horizontal by horizontal movement (logical isn't it). This means problems have to be approached from the correct direction, and on the later levels it's all too easy to get trapped on the wrong side of a forcefield.

Chickens appear on the second level and these move to the left whenever they can, until they hit something. Fish also appear here and these fall straight down, where possible, until they bump into something. If a fish or chicken is released and hits one of the shields, then you'll lose the shield and have to start over. Dollys join in on level five and these move in the direction they're pushed, but fortunately they don't destroy the shields when they hit them.

The chickens, fish and dollys are the key to the whole game because they're what you need to use to complete tasks. One wrong move and you'll make the level impossible to complete, by blocking off either a mask or a corridor of the maze. From these simple elements are built extraordinarily devious puzzles.

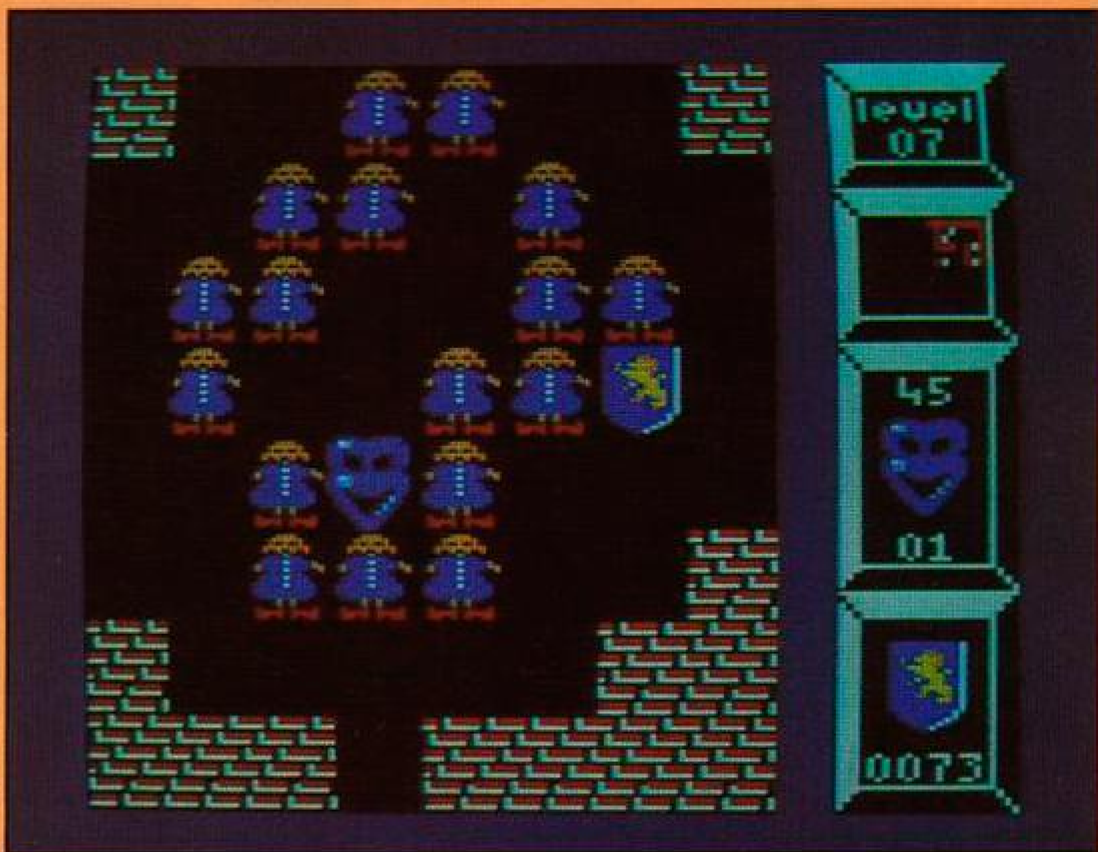
Bombs first enter the game on level four and come in two types, V-bombs and H-bombs. V-bombs explode vertically and H-bombs explode horizontally, destroying the two squares on either side. The bombs are needed on many levels to blast holes through walls, allowing access to other parts of the maze. The bombs are detonated by being hit by one of three things: fish, chickens or another bomb. They also obey a movement pattern, H-bombs behaving like fish and V-bombs like chickens.

Switches look similar to masks but have a sad face instead of a happy one — for good reason. They have the irritating effect of turning out the lights so that the walls of the maze are invisible. If you can find another sad mask you can toggle the lights back on again, but you may do untold damage to the puzzles by blundering around looking for one.

BMUSs (Beam Me Up







Dolls can be pushed in any direction

The Verdict

GRAPHICS 60%

- ☐ Large, clearly defined characters.
- ■ Not much variety in characters or scenery.

SONICS 37%

- ■ Terrible tune.
- ■ No spot effects.

GRAB FACTOR 85%

- ☐ Easy puzzles to start with.
- ■ But you may not appreciate its subtlety from these early screens.

STAYING POWER 94%

- ☐ Fifteen progressively difficult levels.
- ☐ Puzzles on some levels are incredibly devious.

AA RATING 91%

- ☐ It's like *Boulderdash* with less arcade action and much more interesting problems to solve.

MASTER GAME

Scottie) are transporters and these enter play at level ten. They simply allow you to teleport a shield between two points in the maze — makes a change from blowing holes to get around.

SECOND OPINION

This really is incredibly addictive and superbly thought out. The authors haven't missed a single detail in any of the puzzles. At times you'll curse them for playing nasty tricks on you and then be delighted by solving something. I can only compare it to an adventure in the way you have to approach the problem solving, but obviously it requires a different sort of thought process in manipulating all the objects. This is bound to become a classic which will provide excellent entertainment. **BW**

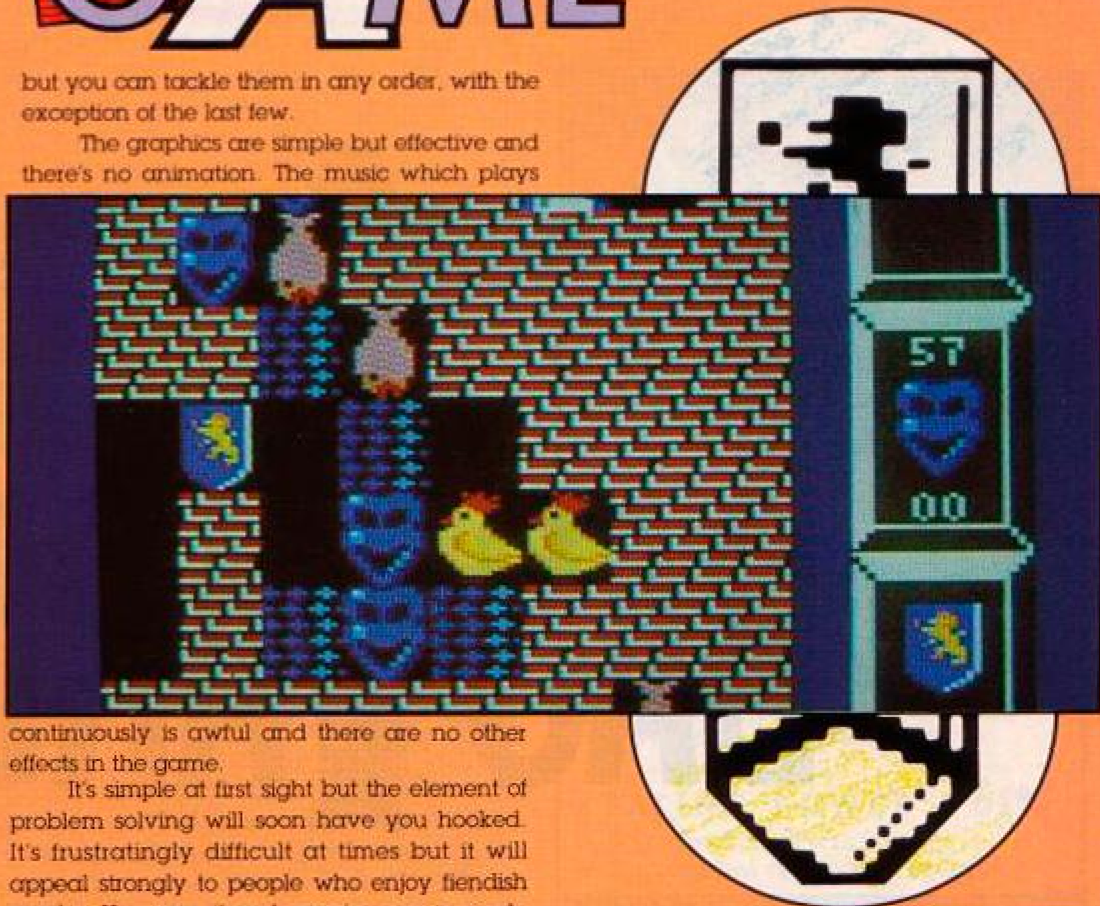
GREEN SCREEN VIEW

Masks and menu screen are dark blue on black and are difficult to see.

There are two more essential elements of the game — a map and a door. The map is picked up in four quarters and shows the location of the masks and position of the door. This is invaluable for determining where to blow a hole in a wall, or where to push through something when you can't see it on the screen. The door is the exit to the maze and can only be used when all the masks have been collected.

As you attempt the harder levels you'll find you have to bring the two shields together to work in tandem. You can also bring one shield to the rescue if the other one gets stuck. This adds still more to the puzzles and enjoyment. The levels have to be completed within 2000 moves, which isn't always easy, but you can tackle them in any order, with the exception of the last few.

The graphics are simple but effective and there's no animation. The music which plays

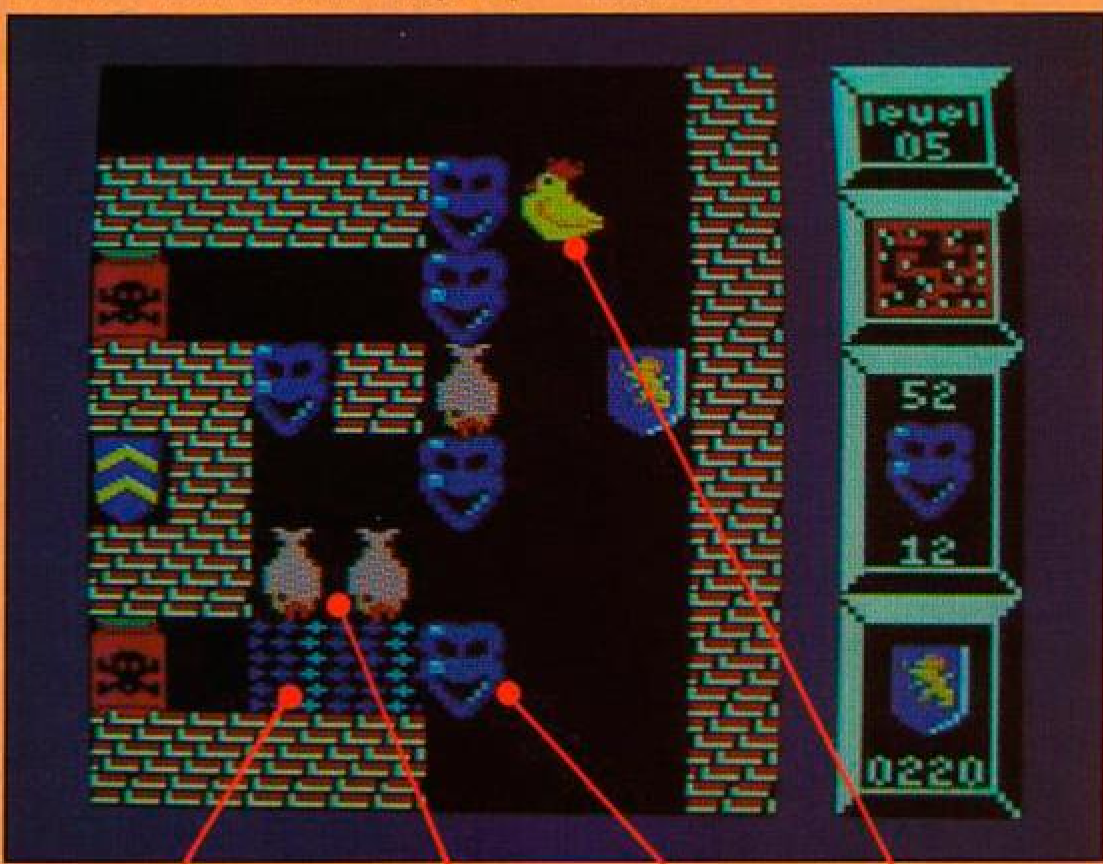


continuously is awful and there are no other effects in the game.

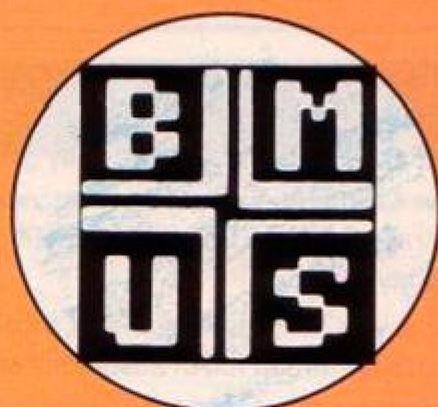
It's simple at first sight but the element of problem solving will soon have you hooked. It's frustratingly difficult at times but it will appeal strongly to people who enjoy fiendish puzzles. You can sit and agonise over a puzzle for ages and suddenly the answer will come to you like a revelation — very rewarding. It will be a long time before this game is mastered.

GBH

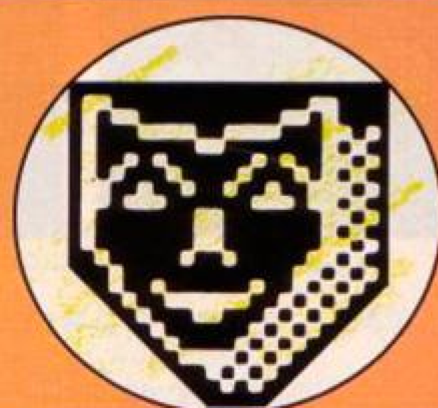
FIRST DAY TARGET SCORE
Complete first three levels



Magus



Transporter



Mask

How to be a COMPLETE



BAS ARD

Game

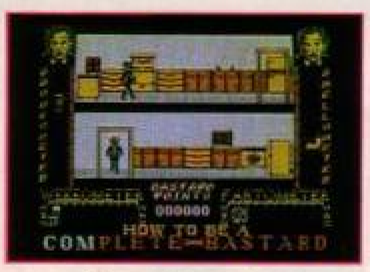
Ade is the sort of person who loosens the screws from the handles of disabled persons' toilets or markets Space Shuttle Jigsaw Puzzles.

In the game he has successfully gate-crashed a yuppie party on the posh side of town and to succeed as **The Complete Bastard** he must incapacitate all the guests by the end of the party and light up each letter in the phrase **COMPLETE-BASTARD**. He must also build up as many **Bastard** Points as he can by extremely offensive behaviour.

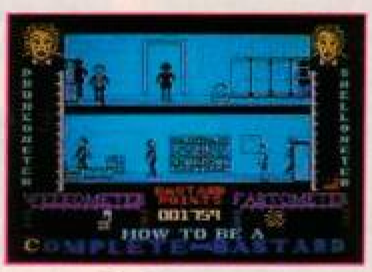
Now you can play Ade and be a **Complete** and **Utter Bastard** in this arcade adventure with split-level screen that's crammed full of absolutely **tasteless humour.**

'Anything this horrible is bound to sell millions.' Sinclair User.

Based on the book of the same name © 1986 by Adrian Edmonson, Mark Leigh, Mike Lepine. A Virgin Book.



Amstrad screen.



Spectrum screen.



HOW TO BE A COMPLETE BASTARD is available from all daring software retailers, or directly from us **under plain brown wrapper.**

Please make crossed cheques or postal orders payable to Virgin Games Ltd and send to Virgin Games Ltd, 2/4 Vernon Yard, Portobello Road, London W11 2DX.

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CHAMPIONSHIP WATER SKIING

Infogrames, £9.95 cass, £14.95 disk, joystick or keys

Now is your chance to put on your wet suit and compete in championship water skiing. No knowledge of water skiing is necessary to play this game, which is lucky because all I know about water skiing, is that you don't need a sloping lake to do it.

The game opens with a menu screen where you set up the game. Up to three people can play in three different water skiing events. The three events are the slalom, the jump and the figures.

Event one is the slalom which is the most difficult of the three . You must ski between the gate and then weave outside the remaining buoys. The rope which links you to the boat must be extended as you reach the buoys, in order to get around it. The rope then has to be shortened so that you reach the next buoy fast enough. Timing when to press the key to extend the rope is the most difficult part.

In the jump you first much set your speed so that you hit the ramp. The screen then changes to show a side view of the ramp and a magnified view of you flying in the top left of the screen. You must then keep yourself upright so that you make a good landing, otherwise under the surf you go. You have three attempts at the jump and score points according to the distance you jumped.

Last are the figures . The screen is split into two parts. One shows the view of your skier from the rear of the speed boat, and the other shows a side view of the course with the boat and skier on it. There are two stages to the course - each last 20 seconds. During this time you perform a variety of manoeuvers to score points. The manoeuvers can be done either in the middle of the boats wake or to the side of the wake. Performing the figures is difficult until you get used to it, but they do become easier with practice.

You can either play the events individually or try all three in sequence. If you play the three in sequence then when the three events are finished a score is shown and you return to the menu screen.

The graphics are large and colourful and the backgrounds are detailed. There are some good title tunes, but no music actually plays during the game. Sound during the game is limited to spot effects.

Championship Water Skiing is more of a simulation than a game. If you have always wanted to try water skiing, but never had the money, then this could be a drier alternative for you. **GBH**

FIRST DAY TARGET SCORE

70m jump, get round 6 buoys and 4000 pts in the figures.

SECOND OPINION

I was disappointed at first by what seemed a very simplistic game – nothing seemed to happen in the jump or figures and I couldn't get anywhere in the slalom. However after getting the rhythm of the slalom it becomes the most interesting and testing of the events. The other two aren't as good, but together the three events make an enjoyable and novel sports simulation. **BW**

GREEN SCREEN VIEW

No problems.



Up, up and away

The Verdict

GRAPHICS 90%
- □ Large well animated skier.
- □ Colourful screens for all three events.

SONICS 65%
- □ Good tunes on title screen.
- ■ Not much in-game sound.

GRAB FACTOR 73%
- □ Enjoyable when you know how.
- ■ Very difficult to begin with.

STAYING POWER 61%
- □ Slalom may keep your interest
- ■ The other two events are a bit easy.

AA RATING 66%
- □ Novel type of game.
- ■ Probably won't keep you hooked for long.

MISSION JUPITER

Code Masters, £1.99 cass, joystick or keys

You are equipped with a rocket pack and a laser, and set off to journey across the planet of Jupiter, home of the great red zit. Well, why not? It was a nice sunny day, it seemed perfectly natural.

There are ten levels of scrolling graphics to travel across. Each level is several screens wide and they are occupied by a variety of aliens. The first level has space suited aliens, armed with lasers and lasers cannons, which point into the sky. Level two has UFO's which move up and down the screen as they come towards you. Missiles and meteors enter on level three and homing missiles join in on level four. Ground based hazards are fires and spikes and these must be flown over.

You have limited ammunition and fuel in your rocket pack. Fortunately fuel and ammunition appear randomly on each level. These are picked up by landing on them. You have four lives to complete the game with.

The scrolling of the scenery is jerky but the backgrounds are colourful and detailed. The sprites are small and there is little animation. There are no tunes, but the sound effects are quite good. For the price it's quite a good game although the gameplay is repetitive. **GBH**

FIRST DAY TARGET SCORE

Complete four levels.

SECOND OPINION

You can't really complain about a game like this – it's cheap, colourful, fast moving and reasonably tough. It won't set the world alight, but it might pass some time pleasantly enough. **BW**

GREEN SCREEN VIEW

No great problems in this department.



Doesn't Jupiter look nice for the time of year?



The Verdict

GRAPHICS 72%
- □ Good use of colour.
- ■ Jerky scrolling.

SONICS 61%
- □ Good explosions.

GRAB FACTOR 62%
- □ Easy to get into.
- □ Ten progressively difficult levels.

STAYING POWER 54%
- ■ May lose interest quickly.
- ■ Very little happening on screen.

AA RATING 62%
- □ A cheap shoot-em-up.

ROMANTIC ROBOT *present*



WHAT IS THE ANSWER TO LIFE, THE UNIVERSE, AND EVERYTHING ?

forty two = multiface two

??? YES, FORTY TWO POUNDS IS THE SPECIAL SUMMER PRICE OF THE MULTIFACE TWO.



Q: WHY WOULD I NEED THE MULTIFACE TWO?

A: Basically to make back-ups of programs on a CPC 464, 664 or 6128 and also to enable you to study, alter and customize them.

Q: OH, DO I NEED TO UNDERSTAND THE PROGRAMS OR EVEN ALTER THEM TO MAKE BACK-UPS?

A: NO! – NOT with the MULTIFACE TWO – it is in fact the ONLY product on the market which works FULLY automatically. You load any program as usual, run it for as long as you like and when you wish to make a copy you just press the MULTIFACE's red button and follow the menu and on-screen instructions.

Q: HOW DOES IT WORK THEN? IS IT EASY? USER-FRIENDLY? ERROR-TRAPPED? IDIOT PROOF? GUARANTEED?

A: YES! It works a treat and it could not be easier. The menu gives four basic options – to **SAVE** a program, to **RETURN** to continue it, to **JUMP** (say to your own routines – invaluable for hackers) and **TOOL** to access the MULTI-TOOLKIT set of built-in utilities. For example pressing **S** to **SAVE** will first allow you to **NAME** the back-up and then let you save a **PROGRAM** or just a **SCREEN** to **TAPE** or **DISK**. Before the saving itself, MULTIFACE compresses the program so that it takes the least amount of space on tape/disk and will re-load as quickly as possible. Once a program is saved, you can **RETURN** or **JUMP**, use the **TOOLKIT** to change it, **SAVE** it again, etc.

Q: DON'T YOU CORRUPT THE SCREEN WITH YOUR MENU, INSTRUCTIONS, PULL DOWN WINDOWS, ETC.?

A: NO. MULTIFACE TWO has its own memory (8K ROM & 8K RAM) and a lot more hardware – thus when it finishes its job or when you re-load your back-ups, everything is **FULLY** and **AUTOMATICALLY** restored. NOTHING else can do this and on all other devices you will need to try to restore the screen: its modes, colours, windows, etc. – this takes quite some time and effort and the failure rate is high...

Q: OK, SO MULTIFACE CAN COPY FROM TAPE TO DISC, BUT CAN IT ALSO COPY FROM TAPE TO TAPE OR DISC TO DISC OR DISC TO TAPE?

A: Of course it can. MULTIFACE saves either to tape or disc and it saves whatever happens to be in the computer at that time: it does not matter whether it was originally loaded from tape or disc or even typed in, so all combinations are possible.

Q: SO FAR SO GOOD. BUT CAN'T I DO ALL THIS WITHOUT THE MULTIFACE?

A: ABSOLUTELY NOT! First, you need a hardware device, a "magic box", to be able to stop and copy any program at any stage – no software-based copier can in principle ever do that. Any tape/disc copier will just try to copy a tape as it is – if there are unorthodox leaders, speedlocks, protections against copying, etc., you'll end up with a problem – but not with a back-up. If you wish to back-up any game at any point, be it upon loading or after going through the lenslock or half-way through, if you wish to poke infinite lives and then save, etc. – you just can't do anything like it with tape/disc copiers – you need the MULTIFACE!

Q: MULTIFACE IS NOT THE ONLY 'MAGIC BOX' ON THE MARKET – WHY SHOULD I BUT IT MORE THAN ANYTHING ELSE?

A: There are four devices on the market: Action Replay by Datel Electronics, Disc Wizard by Evesham Micros, Mirage Imager and MULTIFACE TWO. Each manufacturer would naturally argue his product is the best buy – fortunately (for you and us), MICRONET recently compared all four units and MULTIFACE TWO came out the best in literally all respects: the most successful one – 100%!, the ONLY AUTOMATIC ONE, the FASTEST ONE both in LOADING *AND* SAVING time, the one taking the LEAST ROOM when saving – and you still get a couple of EXTRAS: a RESET button and an extensive and unique MULTI-TOOLKIT.

MULTIFACE TWO SIMPLY MAKES LIFE WORTH LIVING AGAIN !

The summary of MICRONET tests: "MULTIFACE TWO from ROMANTIC ROBOT wins easily on all features! It is faster, more convenient, more successful, uses less space and has more facilities!"

RESET ● multiface two ● STOP



MICRONET RESULTS	ACTION REPLAY	DISK WIZARD	IMAGER	MULTIFACE TWO
Success Ratio	20%	40%	50%	100%
Average Saving Time	33.4sec	44.5	38.6	32.5
Average Setting (Correction) Time	1.5min	17.5	6.6	zero
Average Loading Time	21.7sec	40.7	36.6	19.7
Average File Size	68k	89k	53k	49k

Tape-to-disk at the touch of a button. Ridiculous, you may say, but it works every time. *Multiface* can stop any program in its tracks and save the program from memory to either tape or disk. It's completely fool-proof. Similar products have had problems with screen size, colour and even sound; *Multiface* can handle all these without a second thought.

That alone would have satisfied many people, but Romantic Robot has gone one step further, incorporating a memory editor. No program is safe with this: everything is out in the open, including the Z80 registers, CRTC data and any part of memory.

Don't be fooled into thinking this will result in mass piracy, however. The *Multiface* unit itself must be plugged into your Amstrad to allow reloading of a program it saved.

Multiface II must be the cleverest hardware device at present – a necessity for disk owners who thought they were stuck with loading from tape every time.

AMSTRAD ACTION JANUARY 1987

The special price of £42.00 applies strictly to mail orders received with the coupon below before the end of November 1987.

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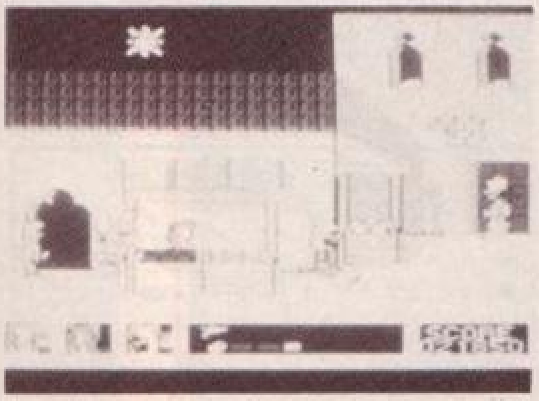
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MYSTERY OF THE NILE

Firebird, £7.95 cass, £12.95 disk, joystick or keys

Firebird have been busy recently with *Cholo* and *Mission Genocide* last month and now *Mystery of the Nile*. The Jewel of Luxor has been stolen and you control three heroic personalities in there Indiana Jones style attempt to recover the gem, which Abu-Sahl has stolen. The three characters are Dr Nevada Smith (aren't Nevada and Indiana both states in the USA), famous archaeologist, Janet Dwight his assistant and Al-Hasan a native of Egypt.



Three go off to the market.

The game opens with Janet standing on her balcony in the morning and down below appears one of Abu-Sahl's men. On another balcony are a pile of hand grenades which Janet must use to kill her enemies. She then moves off the screen to the right where there are more minions to be slaughtered. This time there is also a dynamite thrower to kill. Screen three sees the entrance of Al-Hasan who follows Janet about and screen five brings Nevada into the game.

The three characters are controlled one at a time and and control is changed by use of the keys 1, 2 and 3. Janet throws grenades, Nevada shoots people and Al-Hasan beats people to death with his umbrella. The gun and grenades are in a limited quantity and replacements need to be picked up by the appropriate character. The heroes each can be hit four times before they die and if one of them is killed the game ends.

Sound in the game is limited to spot effects. There are a couple of tunes on the title screen and death screen. The tunes sound good, but don't fit in with the Arabian setting. The graphics are bright and colourful making the game look appealing.

One thing that makes the game very difficult is the way in which the heroes that you aren't controlling, move around. They often end up being killed by an enemy or by you if you are not careful where you aim. This spoils an otherwise good game by making it too difficult. **GBH**

FIRST DAY TARGET SCORE

Complete the first 10 screens.

The Verdict

GRAPHICS 76%
- □ Detailed and colourful scenery.
- □ Nevada and friends look good.

SONICS 60%
- ■ No in game tunes.

GRAB FACTOR 73%
- □ Has a good atmosphere.
- ■ A bit difficult to get the hang of.

STAYING POWER 64%
- ■ Controlling three characters is too difficult.
- ■ Why won't the other two ratbags stay still?

AA RATING 71%
- ■ Good, but sadly flawed.

SECOND OPINION

There you are trying to save something or other from somebody or other, when these two lunatics start weaving about the screen, doing their level best to get you to put a grenade on their bonce. Personally I'm surprised Janet didn't give up on these bozos a long while back. There must be plenty of demand for a gorgeous, pouting, grenade throwing, homicidal maniac. I quite enjoyed it really. **BW**

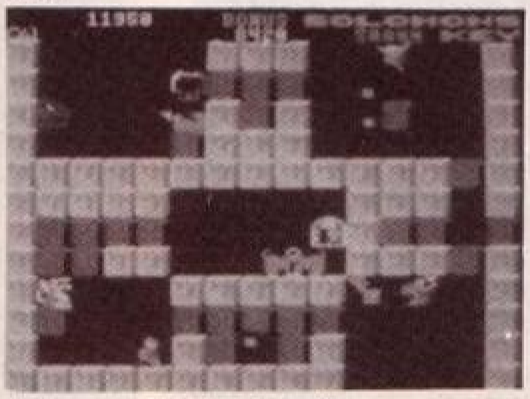
GREEN SCREEN VIEW

Clear view, and just as disobedient.

SOLOMON'S KEY

US Gold, £9.99 cass, £14.99 disk, joystick or keys

My favourite game from now on is this one. I've been a platform game addict since *Manic Miner*, and this one will never stray far from my hand.



Blocks, nasties, fairies lots of gameplay

Your task, is to go through all 20 levels, getting the key in each and taking it to the door. Brilliantly simple, eh? Not so my friend. You move about by casting spells. When you cast a spell, a block will either appear or disappear, depending on whether it was there in the first place (*very Zen – ed*). You can then jump onto these blocks.

Some blocks hide goodies. Some goodies will give you more points, others will give you fireballs, a longer scroll, or death and destruction. The scroll, is where the fireballs are shown, and the fireballs are what you use to kill the nasties. The nasties take the form of little crackling starry things, ogres, strange animals, weird balls, and other barely describable things. If you walk into a nasty, you will die.

Death and destruction causes every nasty on the screen to die. When they die, they will leave another goodie for you. If you see a goodie in the shape of a question mark, eat it quick. It will give you a score bonus of between 10,000 and a million.

I think this game is great. Agreed, it's my favourite type of game, but it does have good graphics, sound and playability. It's easy to get into, but will grip you for hours. **CJB**

FIRST DAY TARGET SCORE

160,000

SECOND OPINION

It's got bags of appeal – great graphics and some classy gameplay. What it doesn't have for me is real lasting interest. 20 screens just isn't enough, and there isn't much variety in them to keep you interested when you have to repeat the early ones for every game. A jolly nice game all round but not my bag of nuts. **BW**

GREEN SCREEN VIEW

No problems at all.

The Verdict

GRAPHICS 83%
- □ Lots of different colours used.
- □ Good animation and screen variety.

SONICS 69%
- □ Good music and effects.

GRAB FACTOR 82%
- □ Easy to get into.
- □ Each level increases in difficulty.

STAYING POWER 76%
- □ Twenty levels to beat.
- ■ Levels get repetitive.

AA RATING 78%
- □ Commendable arcade conversion.

FOOTBALL DIRECTOR

D and H games, £8.95 cass, keys only, 464 only

Here's the first game in a long time that only runs on the 464 and not on the 664 and 6128. Strangely enough another football management game, *Big League Soccer*, also ran only on 464 when it first came out back in December '85. That's the game that you've got to beat in the football management stakes on the Amstrad.

You start as the manager of a fourth division club of your choice and play through a season of 38 matches. The disk version of *Big League Soccer* had the FA Cup but *Football Director* also has the League Cup and European competitions. The European competitions do not appear until you win a cup or finish high enough in the league.

The menu screen has several options which are play match, check match, squad, transfer market, fixtures, league table, employees and save game. Employees allows you to hire a youth team, coach, physio or scout. The scout is probably the most useful because he can look for a particular skill rated player of the type goalkeeper, defender, midfield or attacker. The skill ratings for players go from one up to international level.

The squad option lists your team and allows you to change it or sell players. "Fixtures" lists the matches and the results of those that have been played and the league table displays the...er...league. "Check match" compares your team to your opponents and "play match" gets the game kicked off. The game also features crowd violence, sendings off, sponsors, TV coverage and testimonials – none of which is graphically represented of course.

The match highlights are a counter which counts up towards 90 minutes and the name of any goal scorers and the minute in which they scored. The results of the other matches in the division are displayed and the league table calculated.

There are no graphics in the game with everything being displayed in a table or as text. The program is also completely silent.

Since the game is written in BASIC it is slow at times but this won't matter really. The worst part is that at the end of the season your position is saved to tape and you must then re-load the whole game. D&H Games claim that the game has to be re-loaded because the whole of memory is used. **GBH**

SECOND OPINION

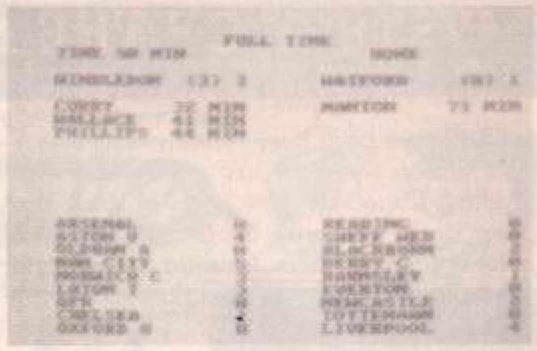
I'm a sucker for football games, I just can't get enough of them. This one's good but not that good. It doesn't have that many advantages on other games and is not well presented. I long for a machine code football strategy game with speed, memory and lots of strategy. I'll keep hoping. **BW**

GREEN SCREEN VIEW

No graphics, no problems.

FIRST DAY TARGET SCORE

Get promoted to the third division.



The ups and downs of football management

The Verdict

GRAPHICS **05%**
- ■ No match highlights.
- ■ Or graphics of any kind for that matter.

SONICS **00%**
- ■ Silence.

GRAB FACTOR **60%**
- □ Will probably only appeal to football fans.
- ■ Program has to be reloaded after every season.

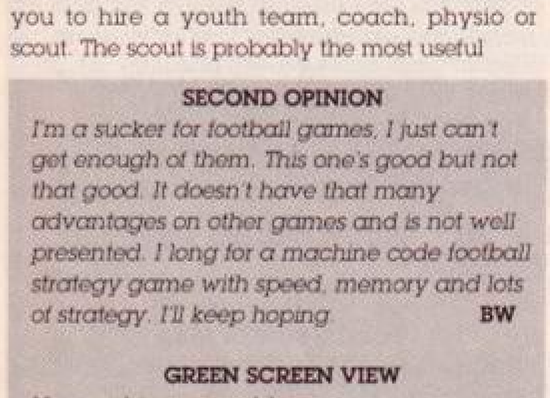
STAYING POWER **70%**
- □ Offers more features than most football games.
- ■ Slowness proves irritating.

AA RATING **65%**

SURVIVOR

US Gold, £9.99 cass, £14.99 disk, joystick or keys

Survival of the fittest is what this game is all about. Floating in space around a long dead planet is a huge spaceship. This ship is full of the inhabitants of a thousand worlds, you are amongst them. Your race is in danger of dying out and you are the only one capable of saving it.



Crawling through a ventilation duct.

There are ten incubators in the ship and you must introduce a pod into each of them. There are 142 rooms in the ship and these are split over four levels. The levels are joined by either vents or lifts. Both are used by standing next to them and squatting down.

You look remarkably like the star of the science-horror film, *Alien* as you walk around the ship or crawl along air ducts. You can also jump and higher jumps can be done by squatting first and then jumping. When in the vents you can cling to the roof by pressing the jump key.

Throughout the ship you will encounter some of the other races who drain your energy when they bump into you. To replenish your energy you can find a white coated engineer who you can eat. They don't appear to like being eaten, but it does you a world of good and looks nice too. You can paralyse the aliens by spitting at them. The range you spit at depends on how long the fire button is depressed.

The graphics are colourful, but the animation is jerky. Sound effects in the game are limited and ineffective. There is a good title tune, but there are no tunes during play.

The idea of for once being a savage alien merely trying to survive and to re-build its race is novel, but unfortunately the game does not live up to its potential. **GBH**

SECOND OPINION

It looks pretty enough and has nice touches like munching engineers – boy, do they look surprised! In the end it can't compensate for the basic lack of depth. Games where you just explore are really starting to bore me, particularly when you have to work out an awkward lift system. Still it looks okay and has quite a challenge to it, so you could do worse. **BW**

GREEN SCREEN VIEW

As you'd expect aliens look okay in green.

FIRST DAY TARGET SCORE

Place a pod

The Verdict

GRAPHICS **68%**
- □ Large colourful characters.
- ■ Unrealistic animation.

SONICS **65%**
- □ Good title tune.
- □ Reasonable effects in the game.

GRAB FACTOR **00%**
- □ Eating engineers is fun.
- ■ Very confusing to begin with because of the ships layout.

STAYING POWER **59%**
- □ Resurrecting your race will take a long time.
- ■ Basically a "collect the set" game.

AA RATING **63%**

Over 'ere John, on me 'ead   Bet John Hurt can bear to play this


TRANTOR
THE LAST STORM TROOPER
The order of the solar system as kept for thousands of years by the people of Zybor was coming apart. Growing dissatisfaction in outlying planet bodies increased as their technological achievements reached greater heights. Zybor reacted in the only way left to it whilst the technological advantage remained in its hands. And so Trantor was brought from out of the ranks of the warriors forces where a brutal streak and rebellious nature made sure his talents never realised their full potential. His credentials were perfect his mission was simple, to lead a band of outlaw mercenaries and smash the growing power of the New World NEBULITHONE before its atomic threat turned into an awesome cataclysm of conflict. But the Nebithons were not unprepared and when on return from a reconnaisance scouting, Trantor found the remains of his undercover force scattered amongst the alien landscape along with the last fragments of his battle cruiser, he felt the hate and rage surge through his body and within the ice cold compartment of his mind, he recognised the burden that now lay with him, that all now depended on he – Trantor, the Last Stormtrooper.
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probe

IN THE LAND OF THE BLIND THE ONE EYE'D MAN IS KING

"More challenging and complex than Chess"

(Lee Rodwell – The Times, September 1987)





Actual Atari ST screen shots



Graphics vary according to format

Spectrum £9.95

Commodore 64/128 £9.95 (£14.95 Disk)

Atari ST £14.95

Amstrad £9.95 (£14.95 Disk)

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JOE BLADE

Players, £1.99 cass, joystick or keys

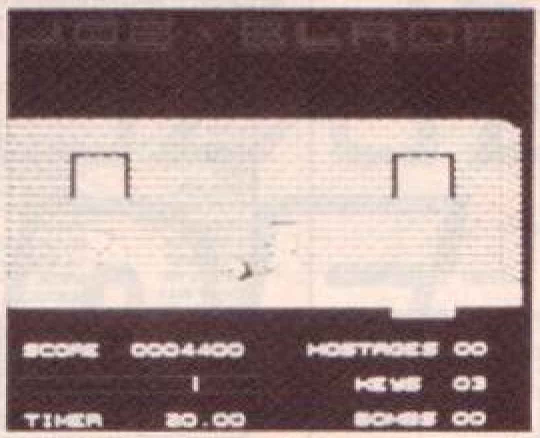
Crax Bloodfinger and his gang of terrorists have kidnapped six world leaders and is holding them for ransom. The respective governments are unwilling to pay the measly 30 billion dollars for their safe release, so they've sent for you to attempt the rescue.

The screen has a central playing area, which is flick screen, with doors and windows in the foreground and background. These can be entered by pressing up or down as appropriate.

Inside Bloodfinger's HQ you will find terrorists and bombs. The terrorists cause you to lose energy when you touch them. When you run out of energy the game ends. There are six bombs which have to be activated to destroy Bloodfinger's HQ. These are booby trapped and to activate them you have a time limit in which to arrange the letters A-E into alphabetical order. Fail to do this and the game ends with you being blown up.

Lying about on the floor are items of use to you such as food, enemy uniforms, keys and ammunition. The keys are needed to open the many doors. While you are wearing a uniform the machine gun toting troopers do not harm you. Food replenishes your limited energy and ammunition keeps your trusty machine gun spitting bullets.

The screen is only in two colours, but the colours change from room to room. The terrorists are well animated as they goosestep their way around Bloodfinger's HQ. There are machine gun sounds and title tunes **GBH**



Another hostage ready to be rescued.

SECOND OPINION

Not my idea of fun this aimless wandering around. What it needs is more of the puzzling element that the bombs introduce. A few more stages like that and it would be a much better game. Why couldn't we have had combat action with the guards as well, rather than just pressing a button to fire the gun. Disappointing. **BW**

GREEN SCREEN VIEW

The rooms are virtually indistinguishable in colour.

The Verdict

GRAPHICS **56%**
- □ Detailed characters.
- ■ Monochrome screen.

SONICS **60%**
- □ Good title tune.

GRAB FACTOR **60%**
- □ Simple to play.
- ■ Not much thought needed.

STAYING POWER **53%**
- □ Bomb puzzles make things more difficult
- ■ Spend a lot of time wandering around looking for something to do.

AA RATING **57%**
- ■ Could have been much better with a bit more thought.

TAI-PAN

Ocean, £8.95 cass, £14.95 disk, joystick or keys

Tai-Pan is a trading game set in the China seas in the 1840's. It is based on James Clavell's book of the same name and has you in the role of Dirk Struan, a penniless trader, whose desire is to become extremely rich. Tai-Pan is the title given to a merchant prince of the Far East.

The game starts with you having no ship or money and your first task is to obtain a loan. To do this you go to the restaurant where you can meet with someone who will give you loan of $300,000. Next stop the bank where you have a choice of which of the three types of ship to buy. You can only afford two of them and the cheapest is probably the best bet: otherwise you may not have enough money for cargo and crew. Money can also be lost or gained by gambling in the restaurant.

Crew can be obtained in two ways, the first is by going to the Inn and hiring them and the second is by press-ganging. A hired crew is more reliable, but a press-ganged crew is free.

Cargo is bought and sold at the warehouse. The hold of the three types of ship dictates the quantity of cargo you can carry. Make sure you stock up on food from the supply depot otherwise you run the risk of mutiny when your crew becomes hungry. Cannon balls and musket shot can be obtained from the armoury so that you are not defenceless when out on the high seas.

To leave the port you go to the harbour and then the sailing section of the game is loaded. During this section of the game you control the speed and direction of the ship. One of the icons allows you to shoot at any passing ships and so you can take up piracy. When you reach another port you set off to the warehouse where you can sell your cargo and buy another load.

The date is updated from time to time and if you fail to pay off your loan within the time limit you will have your head surgically removed. Play continues until you either die or become Tai-pan. The game can be saved or re-loaded at any time.

The graphics can be summed up in one word: appalling. They are chunky and the animation is not very good either. A tune plays continuously through the game. It does add to the oriental atmosphere.

The main problem with Tai-Pan is the time spent loading the town and sailing sections during play. It spoils the flow and makes it seem less like fun and more of a chore. The graphics would have been better left out and the game loading in one go rather than multi-load.

The mixture of strategy and wandering around town buying and selling does not work very well and it would have been better as a pure strategy game. **GBH**



FIRSTDAYTARGET SCORE

Pay off the $300,000 loan.

SECOND OPINION

Definitely an opportunity missed here. It could have been the Elite of the high seas, but ends up spending too much time with ineffective graphics and not enough time doing things. However, I'm a sucker for this type of game and will probably keep trying to build a fortune. **BW**

GREEN SCREEN VIEW

Clear, but still chunky.

The Verdict

GRAPHICS **40%**
- □ The icons look good.
- ■ The rest of the graphics are terrible.

SONICS **74%**
- □ Good tune plays throughout the game.
- ■ Not much in spot effects.

GRAB FACTOR **64%**
- □ Exploring the China seas is fun.
- ■ Finding your way around town is tricky at first.

STAYING POWER **72%**
- □ Becoming Taipan will take you a long time.
- ■ Especially with waiting for the different sections of game to load.

AA RATING **66%**
- ■ A nice idea which is badly executed.

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Wizball



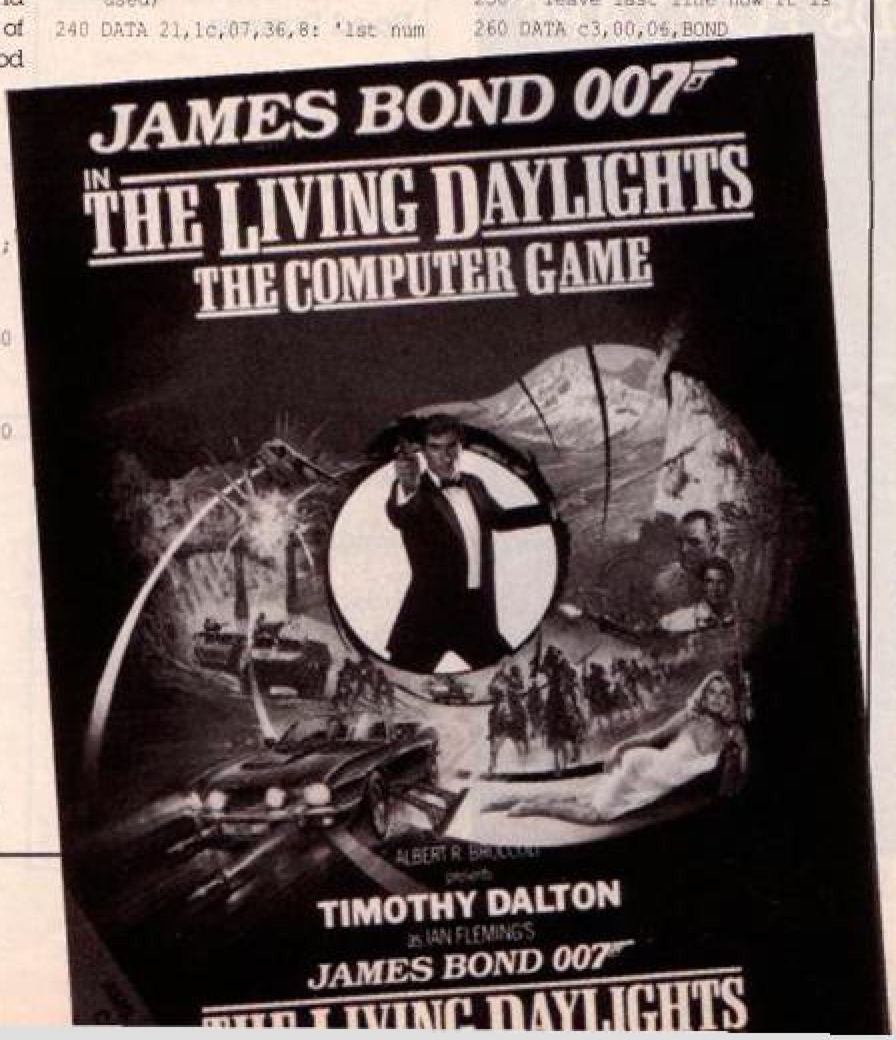
Phil Howard of Mapperley has sent in this poke for last months Mastergame, *Wizball*. It gives you infinite lives and is entered using Method 1.

```
1 ' Wizball - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 21,f4,37,36,c3,23
20 DATA 36,16,23,36,be,21
30 DATA 40,00,e5,21,00,b9
40 DATA e5,c3,c9,37,e5,21
50 DATA 6e,00,36,db,23,36
60 DATA 15,23,36,89,e1,f1
70 DATA f3,c9,21,2e,b9,36
80 DATA ed,23,36,4b,23,36
90 DATA 02,21,2e,b9,11,2e
100 DATA 79,01,26,00,ed,b0
110 DATA 3e,79,32,47,79,32
120 DATA 4b,79,32,53,79,3e
130 DATA c9,32,54,79,cd,2e
140 DATA 79,dd,21,d9,bb,11
150 DATA c6,00,cd,62,bb,21
160 DATA 91,bc,36,c3,23,36
170 DATA 67,23,36,be,c3,03
180 DATA bc,21,3a,a9,36,a7
190 DATA 21,00,c0,c3,f5,bf
200 MEMORY &3000:y=0
210 FOR x=&BE00 TO &BE7F
220 READ a$:a=VAL("&"+a$)
230 POKE x,a:y=y+a:NEXT
240 IF y<>&2E0D THEN 270
250 LOAD"wizball"
260 CALL &BE00
270 PRINT"Data error !"
```

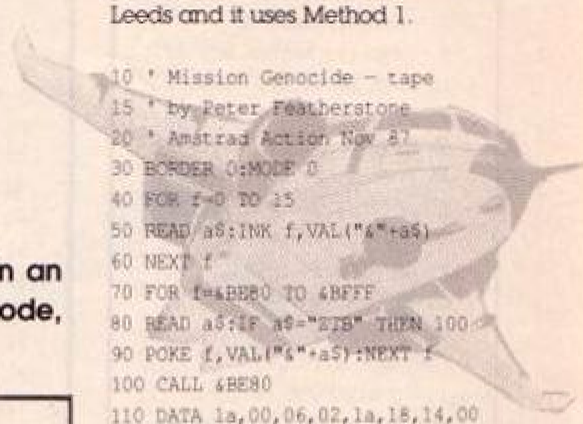
The Living Daylights

Bond is back and this time he can't die. This poke by **Julian Collins** of London gives 007 infinite lives and allows you to choose which level of the game to start on. It's a Method 1 poke.

```
1 ' Living Daylights - tape
2 ' by Julian Collins
3 ' Amstrad Action Nov 87
10 PRINT"Infinite energy? (Y/N)";
20 a$="":WHILE a$="":a$=UPPER$
   (INKEY$):WEND
30 IF a$<>"Y" AND a$<>"N" THEN 20
40 IF a$="Y" THEN RESTORE 200
   ELSE RESTORE 220
130 MEMORY &A5FF:LOAD"bond",&A600
140 addr=&A627
150 READ a$:IF a$="BOND" THEN
    GOTO 180 ELSE POKE addr,VAL
    ("&"+a$)
160 addr=addr+1
170 GOTO 150
180 CALL &A619
190 ' infinite energy
200 DATA 21,ed,2c,36,00
210 ' start level
220 DATA 21,27,7,36,1: 'last
    number in this line is start
    level
230 ' number of lives (only use
    ful if infinite energy not
    used)
240 DATA 21,1c,07,36,8: '1st num
    ber in this line is number of
    lives
250 ' leave last line how it is
260 DATA c3,00,06,BOND
```



Mission Genocide



Last month there was a poke for *Mission Genocide* which had several errors in it. Here is the corrected listing by **Peter Featherstone** of Leeds and it uses Method 1.

```
10 ' Mission Genocide - tape
15 ' by Peter Featherstone
20 ' Amstrad Action Nov 87
30 BORDER 0:MODE 0
40 FOR f=0 TO 15
50 READ a$:INK f,VAL("&"+a$)
60 NEXT f
70 FOR f=&BE80 TO &BFFF
80 READ a$:IF a$="ZTB" THEN 100
90 POKE f,VAL("&"+a$):NEXT f
100 CALL &BE80
110 DATA 1a,00,06,02,1a,18,14,00
120 DATA 0d,09,0f,10,12,00,0e,03
130 DATA f3,21,00,00,11,00,be,01
140 DATA 40,00,ed,b0,31,3f,bf,3e
150 DATA 06,21,40,bf,11,00,00,cd
160 DATA a1,bc,21,e5,97,36,0c,af
170 DATA 32,e2,97
180 ' inf lives
190 DATA af,32,c7,a0
200 'inf bullet speed
210 DATA af,58,93,90,32,7a,94,3e
220 DATA 0c,32,8f,90
230 'inf speed
240 DATA af,32,47,93,32,70,94,3e
250 DATA 04,32,8a,90
260 'inf missile speed
270 DATA af,32,33,93,32,84,94,3e
280 DATA 06,32,99,90
290 'no bad stars
300 DATA 3e,c9,32,82,a2
310 'don't remove
320 DATA 21,00,be,11,00,00,01,40
330 DATA 00,ed,b0,c3,38,86,ZTB
```

Exolon

Peter Featherstone of Leeds has sent in a poke for infinite grenades, ammo and lives in Hewson's Mastergame. It's entered using Method 1.

```
1 ' Exolon - tape
2 ' by Peter Featherstone
3 ' Amstrad Action Nov 87
10 BORDER 0:INK 0,0:INK 1,6
20 INK 2,18:INK 3,26:MODE 1
30 MEMORY &3FFF
40 LOAD"!LOADER",&4000
50 FOR f=&BE80 TO &BFFF
60 READ a$:if a$="END" then 90
70 POKE f,VAL("&"+a$)
80 NEXT f
90 CALL &BE80
100 DATA 21,89,be,22,53,41,c3,00
110 DATA 40,af
120 DATA 32,59,11:' inf ammo
130 DATA 32,7a,1f:' inf grenades
140 DATA 32,25,2a,32,25,2b:' inf
    lives
150 DATA c3,00,01
```

Vampire

Welcome to **Phil Howard**'s corner. Now you can bite people in the neck with many lives in Codemaster's game, *Vampire*. Use Method 1.

```
1 ' Vampire - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 21,4f,bf,36,0b,23
20 DATA 36,be,c3,00,bf,21
30 DATA 5b,2d,36,34,c3,88
40 DATA 13,21,e2,39,36,c3
50 DATA 23,36,29,23,36,be
60 DATA 21,40,00,e5,21,00
70 DATA bb,e5,c3,b7,39,e5
80 DATA 21,91,01,36,d0,23
90 DATA 36,6f,23,36,cd,e1
100 DATA f1,f3,c9
110 y=0:MEMORY &2000
120 FOR x=&BE00 TO &BE38
130 READ a$:a=VAL("&"+a$)
140 POKE x,a:y=y+a:NEXT
150 IF y<>&171C THEN 180
160 LOAD"vampire"
170 CALL &BE13
180 PRINT"data error"
```

Hive

You'll never guess who sent in this poke. It's **Phil Howard** again with a poke for *Hive* which gives Infinite energy. It's good old Method 1 again.

```
1 ' Hive - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA cf,ca,8a,21,38,bd
20 DATA 36,1b,21,0e,bc,36
30 DATA c3,23,36,16,23,36
40 DATA be,c3,00,3c,cd,00
50 DATA be,21,20,be,22,ac
60 DATA 01,c9,af,32,c0,34
70 DATA 32,59,3c,c3,82,12
80 y=0:MEMORY &3000
90 FOR x=&BE00 TO &BE29
100 READ a$:a=VAL("&"+a$)
110 POKE x,a:y=y+a:NEXT
120 IF y<>&1008 THEN 150
130 LOAD"hivel"
140 CALL &BE03
150 PRINT"data error"
```

Palitron

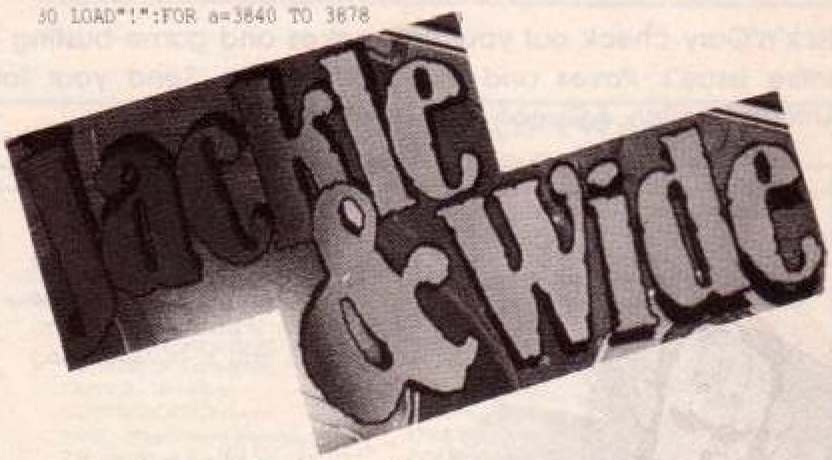
Paul Robson of Cleveland has sent in this poke for infinite lives in *Palitron* by the Edge. Use Method 1.

```
1 ' Palitron - tape
2 ' by Paul Robson
3 ' Amstrad Action Nov 87
10 MEMORY &2710
20 BORDER 0:MODE 0
30 FOR f=0 TO 15:READ a:INK f,a
40 NEXT
50 LOCATE 3,12:PRINT"Loading"
60 LOAD"!!TPAL.BIN",&88A4
70 FOR f=&8AA4 TO &8AB9
80 READ a$:POKE f,VAL("&"+a$)
90 NEXT
100 CALL &8AA4
110 DATA 00,26,13,10,23,07,05,06
120 DATA 15,14,04,08,17,16,02,01
130 DATA 21,ad,8a,22,07,89,c3,a4
140 DATA 88,21,23,24,06,06,23,36
150 DATA 00,10,fb,c3,00,01
```

Tempest

Bogden Kit of London has sent in this poke for *Tempest* which gives you infinite lives and superzaps. Use Method 1.

```
1 'Tempest - tape
2 'By B.K
3 'Amstrad Action Nov 87
10 MEMORY &3039:MODE 1
20 LOCATE 17,12:PRINT"Wait..."
30 LOAD"!":FOR a=3840 TO 3878
40 READ b:POKE a,b:NEXT a
50 CALL 3840:DATA 62,195,33,14,
   15,50
60 DATA 174,187,34,175,187,195,
   5,64
70 DATA 205,55,189,62,195,50,
   224,78
80 DATA 50,41,79,175,50,220,78,
   50,31
90 DATA 79,50,65,84,195,16,64,74
```



Stuart Wilson (aka Stuart the Cleric) of Bishop Auckland has sent in a poke for *Jackle and Wide*. It gives you infinite time and invulnerability. It's a Method 2 poke and the file called GAME must be skipped.

```
1 ' Jackle and Wide - tape
2 ' by Stu the Cleric
3 ' Amstrad Action Nov 87
10 OPENOUT"!":MEMORY 999
20 MODE 1:CALL &BC02
30 INK 0,26:INK 1,0
40 INK 2,24:INK 3,9
50 LOAD"!",&C000
60 LOAD"!",1000
70 LOAD"!",21000
80 ' unlimited strength
90 POKE &3A4B,0
100 ' infinite time
110 POKE &50FC,0
120 ' no fatal contacts
130 POKE &4E7F,&C9
140 POKE &52DD,&18
150 CALL 1000
```

POKE METHODS FOR TAPE

Here is how to input the majority of Cheat Mode tape pokes. The instructions for each poke tell you which of the two different methods to use. If you have a 664 or 6128, first type |tape.

METHOD 1

Rewind the game tape to the beginning. Now type in the poke listing. Then type RUN and press the Enter key. (Don't use the key marked CTRL or Control; that would stop the poke from working.) Press the Play key on the cassette deck, then any key on the main keyboard - spacebar will do nicely. The tape should now start to play through in the normal way.

METHOD 2

For this method you have to skip the first bit of the game program. To do that, start by rewinding the game tape to the beginning. Now type in the listing. Then type CAT and press Enter. Start the tape by pressing Play and then any key. Then watch the screen.

Soon you'll get the message Found *something* Block 1. It doesn't matter what the *something* actually is; this will vary from one game to another. If the Cheat Mode instructions just tell you to skip the first block, you should stop the tape here.

If the instructions tell you to skip several things, stop the tape when the Found message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.

Road Runner

Julian Collins of London has sent in another poke this month. This time Road Runner gets infinite lives on the disk version of the game. The colours on screen will be incorrect at first but don't worry about it.

```
1 ' Road Runner - disk
2 ' by Julian Collins
3 ' Amstrad Action Nov 87
10 MODE 0
20 LOAD"border",&C000
30 MEMORY &5FFF
40 FOR i=&6000 TO &6023
50 READ a$:POKE i,VAL("&"+a$)
60 NEXT
70 CALL &6000
80 DATA 06,02,21,22,60,11,24,60
90 DATA cd,77,bc,21,00,01,cd,83
100 DATA bc,cd,7a,bc,3e,00,32,26
110 DATA 02,32,27,02,32,28,02,c3
120 DATA 00,01,72,72
```

Sentinel

Regular hacker **Phil Howard** has been working on *Sentinel* this month. This Method 1 poke makes you invulnerable to the Sentinel, but not to his minions.

```
1 ' Sentinel - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 21,38,bd,36,1b,21
20 DATA 48,bb,36,c3,23,36
30 DATA 13,23,36,be,c3,00
40 DATA 3f,21,f3,2c,36,c3
50 DATA c9
60 MEMORY &3000:y=0
70 FOR x=&BE00 TO &BE18
80 READ a$:a=VAL("&"+a$)
90 POKE x,a:y=y+a:NEXT
100 IF y<>&90B THEN 130
110 LOAD"sentinel!"
120 CALL &BE00
130 PRINT"Data Error"
```

ARKANOID

Surprise, surprise, another poke by **Phil Howard** of Leeds who has this time hacked into *Arkanoid*. Pressing ESC at any time takes you to the next level. It's a Method 1 poke.

```
1 ' Arkanoid - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 21,4d,bf,36,31,23
20 DATA 36,be,c3,00,bf,21
30 DATA e2,39,36,c3,23,36
40 DATA 21,23,36,be,21,40
50 DATA 00,e5,21,00,bb,e5
60 DATA c3,b7,39,e5,21,91
70 DATA 01,36,e4,23,36,5b
80 DATA 23,36,d1,e1,f1,f3
90 DATA c9,21,b1,02,22,83
100 DATA 06,c3,e5,45
110 y=0:MEMORY &2000
120 FOR x=&BE00 TO &BE39
130 READ a$:a=VAL("&"+a$)
140 POKE x,a:y=y+a:NEXT
150 IF y<>&1837 THEN 180
160 LOAD"arkanoid"
170 CALL &BE0B
180 PRINT"data error"
```

Tony Hoyle of St Annes has sent in another poke for *Arkanoid*. This one gives you infinite lives and allows you to choose on which level the final screen is. It's a Method 1 poke.

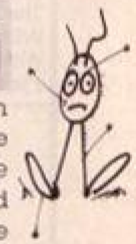
```
1 ' Arkanoid - tape
2 ' by Tony Hoyle
3 ' Amstrad Action Nov 87
10 MEMORY &39AE
20 CLS
30 PRINT"Final screen at level:"
35 INPUT level
40 level=level-1
50 IF level<0 OR level>32 THEN 35
70 LOAD"",&39AF
80 POKE &39E3,&18
90 POKE &39E4,&13
100 x=&39F8
110 GOSUB 180
120 x=&BE80
130 GOSUB 180
140 x=&8000
150 GOSUB 180
160 CALL &8000
170 ' data poking
180 READ a$
190 WHILE a$<>"xx"
200 IF a$="yy" THEN POKE
    x,level:GOTO 220
210 POKE x,VAL("&"+a$)
220 x=x+1
230 READ a$
240 WEND
250 RETURN
260 ' the data
270 DATA 21,67,5b,22,8c,01
280 DATA 21,0b,3a,11,0a,02
290 DATA 01,09,00,ed,b0,f1
300 DATA c9,1a,af,e5,45,26
310 DATA e0,e8,27,e4,xx
320 '
330 DATA af,32,f3,02,32,74
340 DATA 03,3e,yy,32,b7,02
350 DATA 32,38,03,c3,e5,45
360 DATA xx
370 '
380 DATA 21,ff,ab,11,40,0
390 DATA c3,af,39,xx
```

Trap

Thanks to **Phil Howard** another game bites the dust. You can choose which ship you start the game in Alligata's *Trap*. Method 1 is the one to use.

```
1 ' Trap - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 3e,05,32,a8,04,cd
20 DATA 07,04,c9,21,40,00
30 DATA 22,aa,03,00
40 y=0:MEMORY &9000:MODE 1
50 FOR x=&40 TO &4F
60 READ a$:a=VAL("&"+a$)
70 POKE x,a:y=y+a:NEXT
80 LOAD"!pic":LOAD"!t1"
90 POKE &9E5E,&49
100 CALL &9E00
```

Voodoo RAGE



Peter King of Faringdon has sent in this poke for infinite lives and rage in the budget platform game *Voodoo Rage*. It is Method 2 and the first two blocks need to be skipped.



```
1 ' Voodoo Rage - tape
2 ' by Peter King
3 ' Amstrad Action Nov 87
10 MODE 0:BORDER 26:MEMORY &3FFF
20 RESTORE:FOR i=0 TO 15:READ a
30 INK i,a:NEXT i
40 LOAD"!":LOAD"!",&4100:LOAD"!"
   ,&A410
50 CALL &A410:|REPLAY,&B00,15
60 LOAD"!",&9000:LOAD"!",&4000
70 POKE &4A1A,&C3:POKE &4A1B,&FA
80 POKE &4A1C,&49
90 POKE &411C,0:' Infinite lives
100 POKE &4A6D,0:' infinite rage
110 CALL &4000
120 CALL &4365:WHILE INKEY$<>"":
    WEND
130 WHILE INKEY$="":WEND:CALL
    &412E
140 GOTO 120
150 DATA 26,18,9,17,8,11,13,
    22
160 DATA 0,24,6,2,1,4,19,
    2,6
```

Gunstar

Another game falls victim to **Phil Howard**. This time it is *Gunstar* by Firebird and is entered using Method 1. This poke stops you from overheating and gives you rapid fire.

```
1 ' Gunstar - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 21,37,bd,36,c3,23
20 DATA 36,36,23,36,be,21
30 DATA 70,11,36,c3,23,36
40 DATA 19,23,36,be,c3,00
50 DATA 11,32,46,a5,14,7a
60 DATA fe,93,28,01,e9,e5
70 DATA 21,70,11,36,32,23
80 DATA 36,46,23,36,a5,21
90 DATA 3e,01,36,c3,e1,e9
100 DATA 21,61,01,36,41,23
110 DATA 36,be,c3,4b,01,21
120 DATA 76,50,36,c9,af,32
130 DATA e5,4a,c3,1e,a5
140 OPENOUT"!":MEMORY &1000
150 y=0:MODE 1
160 FOR x=&BE00 TO &BE4C
170 READ a$:a=VAL("&"+a$)
180 POKE x,a:y=y+a:NEXT
190 IF y<>&1B45 THEN 220
200 LOAD"gunstar1"
210 CALL &BE00
220 PRINT"data error"
```

Barbarian by Palace gets hacked so that you can choose how many hits it takes to kill your opponents. Enter it using Method 1, but be warned that you will still have to defeat Drax the hard way.

```
1 ' Barbarian - tape
2 ' by GBH
3 ' Amstrad Action Nov 87
10 OPENOUT"!"
20 MEMORY &FFF
30 CLOSEOUT
40 GOSUB 250
50 MODE 1
60 PRINT"Input number of wounds
   opponent takes to be killed
   (1-12) ?"
70 INPUT w
80 CLS
90 IF w<1 OR w>12 THEN 60
100 POKE &1014,w
110 PRINT"Press 1,2 or 3"
120 RESTORE:FOR n=1 TO 3:READ
    a$:PRINT n;a$:NEXT
130 DATA BARBARIAN SIDE 1,
    BARBARIAN SIDE 2 GAME A,
    BARBARIAN SIDE 2 GAME B
140 WHILE INKEY$<>"":WEND
150 a$=""
160 WHILE a$="":a$=INKEY$:WEND
170 IF a$<"1" OR a$>"3" THEN 160
180 a=VAL(a$)
190 RESTORE 200
200 DATA &46,&6d,&6d,&6c,&70,&6c
210 FOR n=1 TO a:READ l,h:NEXT
220 POKE &1016,l:POKE &1017,h
230 CALL &1000
240 REM ** poke data **
250 RESTORE 300
260 FOR n=&1000 TO &1018
270 READ a$:POKE n,VAL("&"+a$)
280 NEXT
290 RETURN
300 DATA 21,40,00,11,64,00
310 DATA 3E,31,CD,A1,BC,3E
320 DATA C9,32,A3,00,CD,40
330 DATA 00,3E,01,32,6D,6C
340 DATA E9
```



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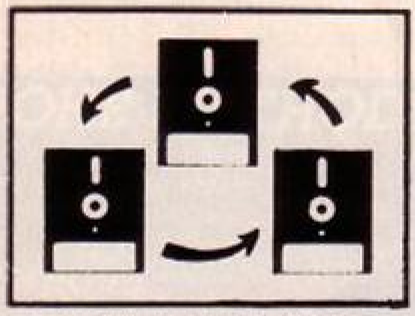
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WINNERS

This month's winner of the Mastergame and all the Raves is **Phil Howard** for his magnificent eight pokes. The runners up who will receive a Rave or the Mastergame are: **Laurence Molloy** for his *Stormbringer* tips, **F. Dentith** for his *Flyspy* tips, **Julian Collins** for two good pokes, **Peter Featherstone** for his two pokes and **Tony Hoyle** for his three pokes.

Tony Hoyle of St Annes has sent in a nice long poke for *Aliens*. It's a Method 1 poke and makes you invulnerable to the aliens, gives you infinite ammo, lets you start in any room and allows you to change the names of the characters.

```
1 ' Aliens - tape
2 ' by Tony Hoyle
3 ' Amstrad Action Nov 87
50 ' Set inks
60 MODE 1
70 BORDER 0
80 FOR n=0 TO 15
90 READ a
100 INK n,a
110 NEXT
130 DATA 0,26,6,20,17
140 DATA 18,1,25,15,3
150 DATA 16,13,13,22
160 DATA 14,13
170 'name of characters
180 DATA RIPLEY
190 DATA GORMAN
200 DATA HICKS
210 DATA BISHOP
220 DATA VASQUEZ
230 DATA BURKE
250 SYMBOL AFTER 256
260 OPENOUT"!p"
270 MEMORY &1FFF
280 DIM n$(5)
290 FOR n=0 TO 5
300 READ n$(n)
310 CLS
320 PRINT"Current Name: ";n$(n)
330 PRINT"Enter new name or hit
   Return"
340 INPUT a$
350 IF a$<>"" THEN n$(n)=a$
360 IF LEN(a$) >7 THEN PRINT
   "Name too long!":GOTO 330
370 NEXT
380 CLS:INPUT "Room to start
   in";room
390 CLS
395 ' load code
400 LOAD"!scroll"
410 LOAD"!credits",&3000
420 CALL &8000
430 LOAD"!title",&3000
440 MODE 0:CALL &8000
450 LOAD"!loader"
460 POKE &80A3,&80
470 POKE &80A4,&BE
480 FOR n=0 TO 5
490 FOR j=1 TO LEN(n$(n))
500 POKE &BECB+(8*n)+j-1,
   ASC(MID$(n$(n),j,1))
510 NEXT j:POKE &BECB+(8*n)+j-1,
   255
520 NEXT
530 x=&BE80
540 ' read machine code
550 READ a$
560 IF a$="xx" THEN CALL &8000
570 IF a$<>"yy" THEN POKE x,VAL
   ("&"+a$):x=x+1:GOTO 530
580 POKE x,room:x=x+1:GOTO 530
590 ' Machine code
600 DATA 3e,yy,32,3b,02
610 DATA dd,21,96,14,dd
620 DATA 36,00,36,dd,36
630 DATA 01,00,dd,36,02
640 DATA 00,3e,87,32,3d
650 DATA 02,3e,03,32,3e
660 DATA 02,3e,e3,32,51
670 DATA 02,3e,cf,32,52
680 DATA 02,af,32,8d,1b
690 DATA 21,cb,be,11,2f
700 DATA 1f,01,30,00,ed
710 DATA b0,c3,40,00,xx
```

Ghost Hunters

L. Townsend of Accrington has sent in this poke for *Ghost Hunters*. Use Method 1 to give a choice of start room and infinite lives. Try typing the following into the high score table, killapede, cheat, panda, robin hood, complex, code masters, andrew oliver, philip oliver or just press enter.

```
1 ' Ghost Hunters - tape
2 ' by L.V. Townsend
3 ' Amstrad Action Nov 87
10 MEMORY &A000:LOAD"!",&A4A0
20 ' stop program auto running
30 POKE &A4FD,&80:POKE &A4FE,&BE
40 ' the pokes
50 FOR i=&BE80 TO &BE8C:READ a$
60 POKE i,VAL("&"+a$):NEXT
70 DATA 3e,c9,32,cf,61:' plenty
   macho
80 DATA 3e,2,32,ca,61:' room
   start 1-14
90 ' change 2 to any number 1-14
100 DATA c3,73,61:'start program
110 CALL &A4A0
```

Stormbringer

Laurence Molloy of Purley has sent in some concluding tips for Mastertronic's budget game, *Stormbringer*.

How to finish the game by merging with the Off-White Knight.

1) Aramis Le Peux has the crystal ball.

2) Carry the Crystal Ball and magic missile to cast the travel to person spell, travel to Rachel of Amazonia.

3) Command Rachel to help and she will give you the code for the teleport system.

4) Go right along the one way corridor until you reach an un-numbered lever, pull it.

5) The other two un-numbered levers should be pulled.

6) Follow the instructions to activate the teleport machine in last issue, then go to the teleport room.

7) Jump into the teleport and go into the left capsule.

8) Take care not to teleport back again, unwear the disguise — the disguise stops you from merging with the Off-White Knight.

9) Find the Off-White Knight and throw the magic missile at him to put him asleep.

10) Walk behind him and turn to face him. Stand halfway behind him and cast the dimension merge spell to finish the game. If the spell doesn't work just reposition yourself slightly until you find the right place to merge with him.



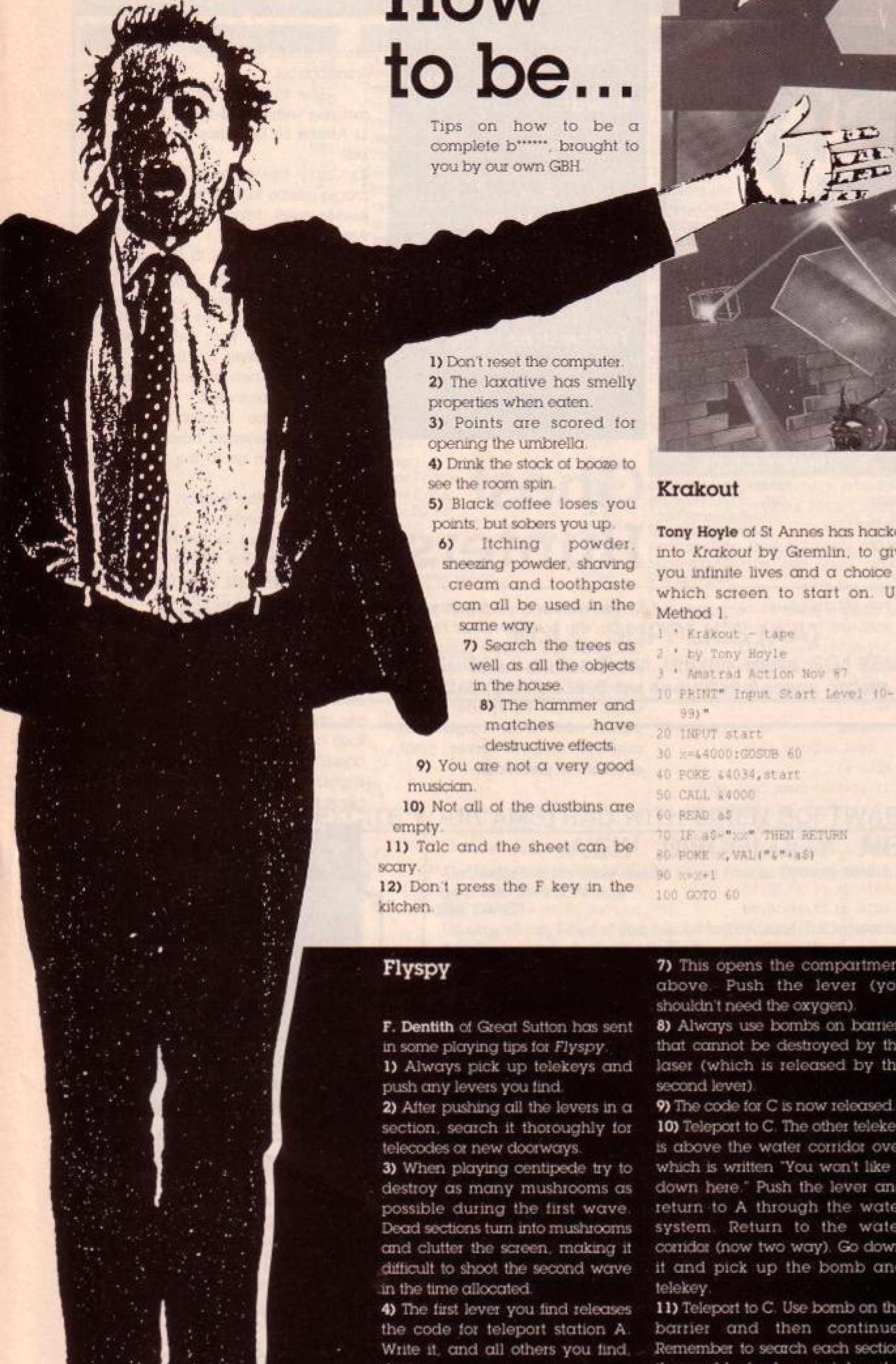
The Fear

I keep getting this funny feeling of deja vu. A **Phil Howard** poke. This time the poke gives you a choice of using a joystick in *The Fear*. Pressing the small enter key will increase the health of both characters. Use Method 1.

```
1 ' The Fear - tape
2 ' by Phil Howard
3 ' Amstrad Action Nov 87
10 DATA 06,05,af,4e,23,32
20 DATA 0a,be,dd,71,00,c6
30 DATA 04,10,f4,c9,4a,4b
40 DATA 48,49,4c,08,01,00
50 DATA 02,12,32,33,30,31
60 DATA 34,06,00,11,40,00
70 DATA d5,cd,77,bc,e1,cd
80 DATA 83,bc,18,00,dd,21
90 DATA 9e,10,21,15,be,cd
100 DATA 00,be,dd,21,fa,0f
110 DATA 21,10,be,cd,00,be
120 DATA 21,4b,be,22,92,0f
130 DATA c3,40,00,f5,3e,06
140 DATA cd,1e,bb,28,06,cd
150 DATA 8d,23,cd,ff,1f,f1
160 DATA cd,1e,bb,c9
170 CLS:y=0:MEMORY &2000
180 PRINT"1) Joy/original"
190 PRINT"2) Joy/joy"
200 INPUT "3) Joy/Cursor";t
210 IF t<1 OR t>3 THEN 170
220 FOR x=&BE00 TO &BE5D
230 READ a$:a=VAL("&"+a$)
240 POKE x,a:y=y+a:NEXT
250 IF y<>&2435 THEN 300
260 IF t=1 THEN POKE &BE2D,&A
270 IF t=2 THEN POKE &BE33,&1A
280 PRINT:PRINT"Loading"
290 LOAD"!data.bin":CALL &BE1F
300 PRINT"Data Error"
```

How to be...

Tips on how to be a complete b******, brought to you by our own GBH.



1) Don't reset the computer.
2) The laxative has smelly properties when eaten.
3) Points are scored for opening the umbrella.
4) Drink the stock of booze to see the room spin.
5) Black coffee loses you points, but sobers you up.
6) Itching powder, sneezing powder, shaving cream and toothpaste can all be used in the same way.
7) Search the trees as well as all the objects in the house.
8) The hammer and matches have destructive effects.
9) You are not a very good musician.
10) Not all of the dustbins are empty.
11) Talc and the sheet can be scary.
12) Don't press the F key in the kitchen.



Krakout

Tony Hoyle of St Annes has hacked into *Krakout* by Gremlin, to give you infinite lives and a choice of which screen to start on. Use Method 1.

```
1 ' Krakout - tape
2 ' by Tony Hoyle
3 ' Amstrad Action Nov 87
10 PRINT" Input Start Level (0-
   99)"
20 INPUT start
30 x=&4000:GOSUB 60
40 POKE &4034,start
50 CALL &4000
60 READ a$
70 IF a$="xx" THEN RETURN
80 POKE x,VAL("&"+a$)
90 x=x+1
100 GOTO 60
110 DATA 11,00,80,06,00,cd
120 DATA 77,bc,eb,cd,83,bc
130 DATA 21,00,03,22,05,01
140 DATA 21,20,40,11,00,03
150 DATA 01,19,00,ed,b0,c3
160 DATA 00,01,3e,00,32,3a
170 DATA 7b,21,13,03,11,bf
180 DATA 52,01,06,00,ed,b0
190 DATA c3,94,4e,3e,00,32
200 DATA 94,52,3e,xx
```

Hydrofool

Robert Smith of Aylesbury has sent in some tips for *Hydrofool* by FTL which tells you which weapon to use on which creature.
Wolf Fish – Hook
Whale – Harpoon
Sea Horse – Horse Shoe
Jellyfish – Spoon

Flyspy

F. Dentith of Great Sutton has sent in some playing tips for *Flyspy*.
1) Always pick up telekeys and push any levers you find.
2) After pushing all the levers in a section, search it thoroughly for telecodes or new doorways.
3) When playing centipede try to destroy as many mushrooms as possible during the first wave. Dead sections turn into mushrooms and clutter the screen, making it difficult to shoot the second wave in the time allocated.
4) The first lever you find releases the code for teleport station A. Write it, and all others you find, down.
5) Collect the oxygen from B and teleport to A.
6) You can now get the bomb that is underwater. Use it and drop it where you find it, then get clear.
7) This opens the compartment above. Push the lever (you shouldn't need the oxygen).
8) Always use bombs on barriers that cannot be destroyed by the laser (which is released by the second lever).
9) The code for C is now released.
10) Teleport to C. The other telekey is above the water corridor over which is written "You won't like it down here." Push the lever and return to A through the water system. Return to the water corridor (now two way). Go down it and pick up the bomb and telekey.
11) Teleport to C. Use bomb on the barrier and then continue. Remember to search each section thoroughly for levers, telecodes and new openings.
12) After pushing the lever at D return to C. D is the only place at which you don't log your position.
13) At C go down the smallest water corridor to the grey square (down, left of the telestation). Fire at the wall to the right in three different places, this gives access to the compartments on the other side of the wall. Pick up both telekey and bomb.
14) At station E the controls are reversed. Also the guns now renew strength instead of decreasing it.
15) Pick up the N-bomb.
16) Be very careful at the huge one way water system. Always check there aren't any levers in any other directions before going through a "door".
17) If you return to a place for a second time re-check the landscape for new telecodes.
18) You can get past the rest of the game in the same way as the sections written about above.
19) Only use the N-bomb at the piece of machinery labelled "The Brain".


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THE PILGRIM



Welcome, fellow Pilgs, to this month's column which brings tidings of great events in the adventuring world, plus reviews of some of the latest games to land on the Pilg's desk. Those of you keen to write your own games can gasp with awe as you see another installment of Pilg programming, so oft delayed – but now resuming its regular schedule of appearances. So read on and hear about the games you can play now, the games you'll be playing soon, and the games you can write yourself...

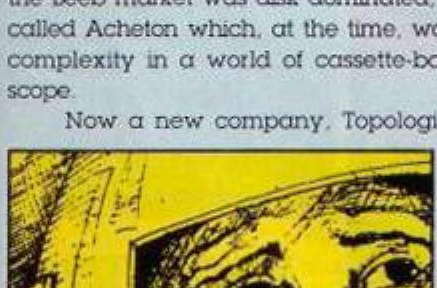
Countdown to Doom

Topologika £17.95 Disk only

Back in days of yore, the BBC micro reigned supreme. It was the machine everybody wanted, but no-one could afford. So we all went and bought Spectrums or Commodores and, later, Arnolds. This was just as well because the old Beeb wasn't much good for games. It's limited memory and small market put off most software houses, who got on with producing games for the cheaper machines.

One exception was, naturally, Acornsoft, who distinguished themselves by producing the best version of *Pac-Man* for a micro (*Snapper*) and one or two very enjoyable adventures. In particular, since the Beeb market was disk dominated, they produced a disk-only game called Acheton which, at the time, was a game of formidable size and complexity in a world of cassette-based adventures of more limited scope.

Now a new company, Topologika, are re-releasing some of the Acornsoft titles (including *Acheton*) for the CPC range (provided you've got a disk-drive). *Countdown to Doom* is one of the launch titles and crashes you down on a hostile planet, where you must retrieve both treasure and spare parts for your damaged ship, before taking off a rich man.



The game comes quite attractively packaged in a plastic case with a short booklet entitled How to Play Adventure Games, written by the programmer of the games, and a blurb about the scenario of *Doom* that details your objectives and also provides a set of encrypted clues (used in conjunction with the game's HELP function).

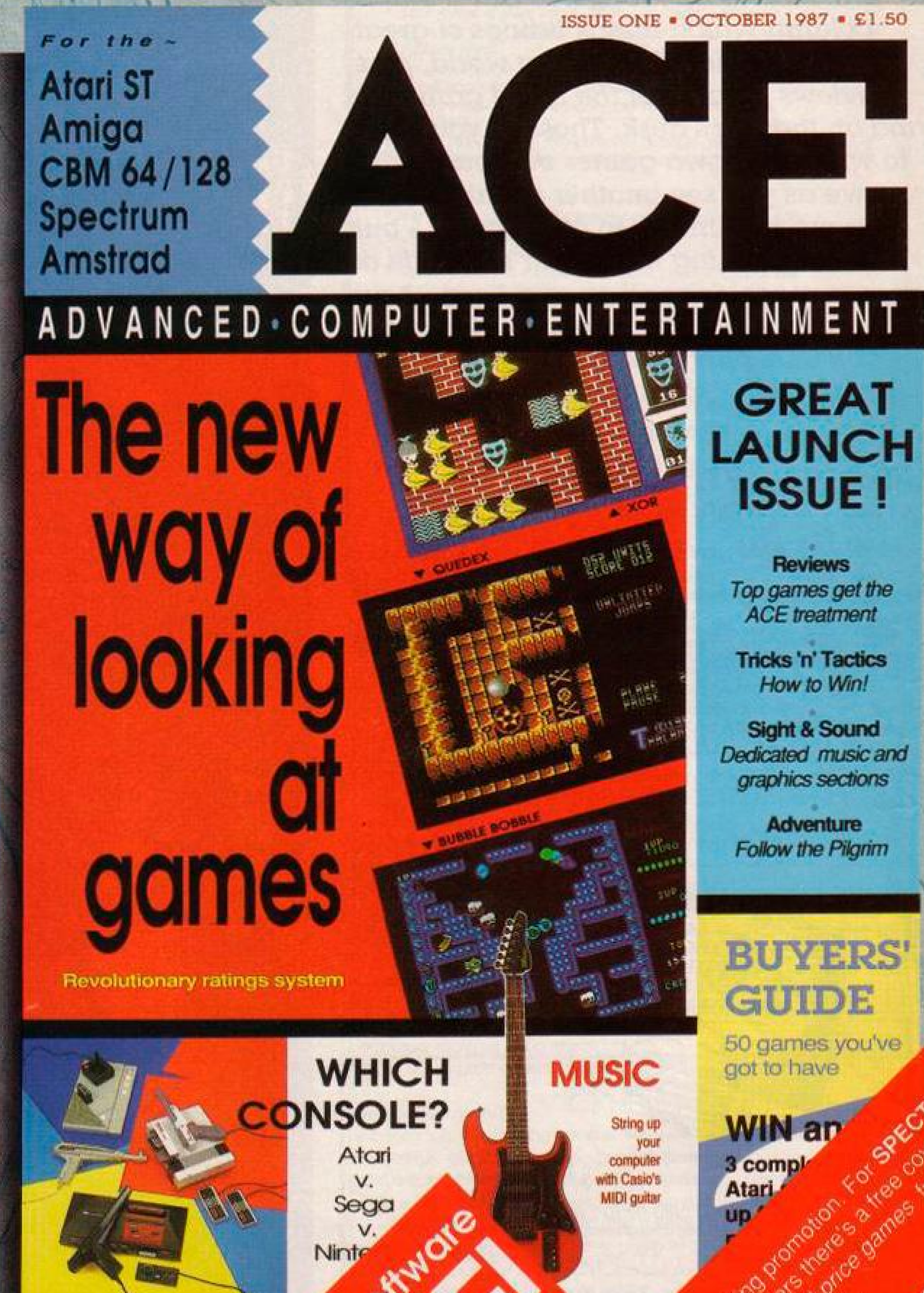
Nowadays we are used to doing a bit more in adventure games than simply solve puzzles – we expect to be able to meet and talk to other characters; we expect to be able to examine almost anything in a location and get a meaningful reply (even if that reply is "It's just scenery – ignore it"); we hope for (but don't always get) RAMSAVE and RAMLOAD; and, finally, we expect to pay a price ranging between £1.99 for the cheapest games, to £19.95 for the most expensive disk-based products with mega-sophisticated parsers and stunning graphics.

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Anyone having these expectations is going to be seriously disappointed with *Countdown to Doom*. First, there are no game-specific instructions – the booklet on playing adventures contains all the information you need and you won't find anything in it about communicating with other characters. You won't even find anything in it about EXAMINEing things – because you can't. And there certainly isn't RAMSAVE or RAMLOAD available.

This starts to pose problems for today's adventurer as soon as he or she starts to play the game. You start off in your crashed spaceship and the first thing you see is a button on a ruined console and a stick of explosive with fuse attached. Your natural impulse is to examine these goodies, but no dice, chum! The game stubbornly replies "I don't understand EXAMINE FUSE", or words to that effect.

This has two main effects on the gameplay. First, it dampens the atmosphere somewhat. Arch-traditionalists will cry that this gives freer rein to the imagination, which may be true but isn't necessarily a good thing – if it was we'd never read books, just the notes the author's wrote outlining the plots. The second effect is that solving puzzles becomes (a) very risky and (b) more difficult.

For example, in one location near the start, there's a blob-like thing that slithers across the path towards a cliff. If you just watch it, it soon disappears over the edge (presumably forever) and since you assume that it has some significance in the game you feel reluctant to let it go. You can't EXAMINE it, so the only thing to do (on first attempt) is to GET it. This is instantly fatal. And, of course, there's no RAMLOAD to get you going without a reload and then a RESTORE from disk – always assuming you've saved the game.

On the good side, the puzzles in the game are quite original and very varied – although not always logical and the game design isn't bad. There is no doubt that some players will enjoy getting to grips with a program where the risks are so many and the frustrations legion. For these people, the fact that the game is also text-only will not be a distraction either. But for those of us reared on more recent products – especially games like *Price of Magik* or *The Pawn* – these games are going to seem slightly crude and unfriendly. Worst of all, they cost £17.50, which – more than anything on the programming side – suggests very much that Topologika are living in the past.

ATMOSPHERE 68% INTERACTION 55% CHALLENGE 66%
OVERALL 59%

Philosopher's Quest

Topologika £17.95, disk only

The blurb on the back of this package reads: "Peter Killworth – the programmer – fell in love with adventures when he discovered *Colossal Cave*. His own first attempt at this new art form (*Philosopher's Quest*) sold 25,000 copies."

What the blurb doesn't say is that that was some time ago, and that since then much has changed in the adventure world. Indeed, all the same criticisms apply to this product as to *Countdown to Doom* (also reviewed in this issue) so I shan't repeat them here.

As for the game itself, however, it is fairly evident that Mr Killworth's fascination with *Colossal Cave* had a decisive influence over his own game design. *Philosopher's Quest* is nothing other than a straight-forward *Cave* derivative, with all the usual "Junctions of several horizontal passages", magic words to utter, strangely inaccessible rooms to penetrate, and treasure to amass.

Unfortunately, we've seen it all before, in a thousand different disguises of which one recent example (*Treasure Tunnels*) cost under £3.00. The only thing that sets this game apart from the others is (1) the fact that it is disk-only and (2) the fact that it costs £17.95. Neither of these assets is likely to convince you or me to pay for it.

ATMOSPHERE 58% INTERACTION 55% CHALLENGE 79%
OVERALL 58%



Pilgrim's Post

A Cry From the Heart...

Please, please,please(382,000,000times)could you print this message: "To Lisa Monteiro,Come back chuckabum! I love you and all is forgiven. Love Bumble (as in Bee)"

Eternally yours, Bumble (from Gosport)

Regular readers will recall that Lisa was the lady who sent in some very revealing pictures of the Pilg.It is with a great effort what I overcome my jealousy and print this letter - but it sounds as if Bumble is a desperate man!

When, Oh When....?

Infocom games are overpriced.

All the best on the road, Hobbit and Co

PS When is the Pawn being released on the CPC 464 + DDI.

This issue of disk-game compatibility with 464's now accounts for a large proportion of correspondence received by the Pilg. The fact is that 464 owners are undoubtedly getting a bad deal from software houses these days. Guild of Thieves, The Pawn, Infocom, and (I expect) Jinxter are all good examples of competent modern games that are simply not available to the bulk of Amstrad owners.

I have to admit that I find this very puzzling. 464 owners comprise the bulk of the market, but are being consistently ignored. OK, I can understand the point about the lack of memory, but surely there is no reason why text-only versions could not be released.

Infocom's policy I find slightly more comprehensible. These American games are being produced in a country where the Amstrad is not exactly a household name and most households look on an IBM as a home computer. Old Arnold only makes the grade because of its CPM compatibility and even then most recent Infocom titles require more memory than the 464 can offer. In theory you can run Infocom Plus games on a 464 plus DkTronics expansion, but in addition you need a 6128 ROM, which you can only get by paying an awful lot of money or by practising criminal deception.

It all comes back to the point the Pilg has made in the past, and for which he has been roundly criticised by many tape users. However, I simply have to make it again. The future of adventuring depends on a wide-spread disk market. You simply cannot develop large scale scenarios on a cassette-based system. Level 9 have done very well, but can we be content to stay at that level forever? Shouldn't we welcome the opportunities of progress offered by disks? Let me know what you think, and start saving for a disk-based system!

Please Contact

I am at the moment considering writing an adventure creator which is wholly disk-based. I would be very grateful to any AA readers with some ideas about what they would like to see in an adventure creator (without being too complicated) if they would contact me.

Yours hopefully, D Williams, 107Victoria Street, Newtown, Wigan, WN5 9BN

Hunt for the Infocom

I have been involved in an adventure of late – although not as you may have thought a computer orientated one. It has been a very difficult task and shall be known in my memoirs as "The Hunt For The Infocom". It all started after your wise advice "Go for Infocom – You can't go far wrong" – so I decided to purchase *Suspect*. Yet where are the elusive INFOCOM? Armed with my trusty 60p bus pass I headed off to find this fabled beast in the dark, scum laden recesses of the city – the local computer shops.

"Infocom?? Nah, never 'eard of 'em"...."Don't stock 'em"...."What do THEY do?".... Hopeless, I arrive back home disheartened. In vain hope I idly flick through Amstrad Action and what do I see? Infocom are distributed by Activision. Whoops! Silly me! Yet what puzzles me is that with the Infocom titles taking more than a third of all the Activision stock, why don't they advertise them? Is it that keen adventurers are a particularly sensitive bunch who develop a sixth sense of telepathy and don't need to be informed of any new releases?

Lee Russell, Forest Gate

Activision tell me that they are currently discussing an advertising campaign for Infocom, which should help to make the games more widely available. In the past, the quality of the games has combined with word-of-mouth publicity to make advertising unnecessary.

Club

Why don't you make up an adventure club?

Michael Dickinson, Atherton

There already is a Pilgrim club, Michael. This column is its monthly newsletter and everybody who reads it is a member. All members are welcome to use the column by writing in with tips, letters, comments on games, their strange experiences in Adventureland, or whatever takes their fancy. The more members involve themselves, the bigger and better the club becomes. Members are given the title "Fellow Pilgs", and are entitled to use this honorific on all correspondence. Welcome...

Programming with the Pilg

PART 8

This month sees the first of the listings for you to type in, so it's worth taking a pause to see what the plan is with regard to the actual programming part of the course.

First, we'll try out a mini-mini adventure with only two locations and three possible actions: a sitting room and a bedroom where you can move from one room to the other and also GET and DROP objects. This listing is in two parts, with part 1 in this issue.

Next, we'll be entering the larger scale program. Again, we're looking at a small-scale game, but the program itself is very long (about 40K, to be precise). We won't be entering it all at once, but rather will first look at the core code of the program and then add to it each month, introducing new commands and features to the basic structure. That way, if you miss a month, you'll still have a program that works, though it will lack the features introduced during the period you missed.

Let's take a look at this month's listing. It sets up two locations, whose descriptions are stored in the array LOCATION$ and two objects. The objects have both a location (obloc) and a status value (obstat) stored in the relevant arrays, and these values are later used to test whether an object is present and whether, for example, it can be carried or not.

You'll notice in line 60 that we set up special counters to tell us how

Lords and Ladies of Adventure



The Pilg still receives countless calls for help each month, despite frequently stating that he unfortunately does not have the time (and occasionally the knowledge) to respond to such pleas. Remember that the Lords and Ladies are there to HELP you. It's for nothing that they put pen to paper and write in to the Pilg, offering to render timely assistance to others less fortunate than themselves. So make good use of them... And if you would like to be included in the column, just send the Pilg a list of the games you have completed together with your name, address, and (if you wish) your telephone number.

You'll find, as many others have done, that offering help to others is a great way of making friends, not just in England but around the world. AA finds its way into many strange places! A phone number does help, but bear in mind that you may receive many calls - so check with other members of your household before including it.

Red Moon, Bugsy, Escape from Koshima, Price of Magik, Worm in Paradise, Return to Eden, Dungeon Adventure, Adventure Quest, Collossal Adventure

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Glenn Pinnock, 121 Long Grove, Baughurst, Basingstoke, Hants, RG26 5NX

Heroes of Karn

Darrel Smith, 85 Roger Lane, Newsome,

many objects etc there are in the game. You might wonder why this is necessary, but it can be very useful if you wish to introduce an object (for example) at a later date. Instead of having to rewrite many different routines, you simply add an object onto the relevant DATA line in the correct format (the object name, its start location, and its status value) and then change the NOBJECTS value in line 60. You can try introducing a new object into this listing when you've typed it in.

Lines 110 to 210 set up the screen, dividing it into different windows which we shall use for different purposes. Since this is an easy-to-use feature of Amstrad BASIC, it's worth taking the trouble to include it and can make a lot of difference to the presentation of a text-only game. In line 160 we also store the widths of the different windows in character units – useful later for formatting text on-screen.

Lines 220 to 330 read the necessary data for the objects and locations into the relevant arrays. Line 370 starts the player in location 1 (the sitting-room).

The main program loop starts in line 400 and consists of five stages: first, the location description is printed, to tell us where we are; second, the exits are printed; third, the visible objects are displayed; fourth, an input is taken from the player; and finally, that input is matched against the vocabulary st

re to see if it makes sense.

Having done all that, the program STOPs in line 1200, ready for processing the input and taking the necessary action – all of which will be done next month. (box 1 follows) Changing the game: The program is written in a "modular" form, as we discussed in an earlier issue, and this helps make it easy to modify. Once you've typed it in and RUN it, try adding an additional object...

For example, let's suppose that we want to add a smelly dog into the living room. First, change the value of NOBNAMES in line 60 to 4. This value indicates how many entries there are in the vocabulary table for object names. Note that the number of object names may be different from the number of objects, since you may wish to give an object several different names for the program to understand. So in line 5070 you will see both "hanky" and "handkerchief" for the same object.

Note that each name is followed by the number of the object it refers to. Now enter a comma after the 2 at the end of line 5070 and then enter...

```
"dog",3
```

...so we can now refer to the dog as...dog! Now enter the main object data after a comma at the end of line 5030...

```
"a smelly dog",1,0
```

..which will put the smelly dog in location 1 (the sitting room) and give it a status value of zero (more about these values next month).

If you now run the game, you will find that the program will print a description of the dog. You can change the player's position by altering the value of PPOS in line 370 to 2, which will force the program to print up a description of the bedroom.

Now for a quick exercise...

Study the program carefully, in particular the manner in which a location is given an EXITCODE, and the values assigned to different directions in line 400. Can you add an exit to location number 1 so that it prints up correctly on the screen? Answer next month. Hint – you only to have alter ONE number in ONE line, and it involved ADDING one number to another.

```
10 GOSUB 5090
20 REM initialise variables and screen
30 '
40 '
50 REM initialise game elements
60 nobnames=3: nobjects=2: ndirections=16: nverbs=2: nlocations=2:
   maxwords=4
70 DIM
   location$(nlocations),exitcode(nlocations),object$(nobjects),oblo
   c(nobjects),obstat(nobjects),word$(maxwords)
80 '
90 '
100 REM initialise screen display
110 MODE 2: WINDOW #1,2,30,19,24:WINDOW #2,1,80,1,4: WINDOW
    #3,33,79,19,24: WINDOW #4,1,80,6,6: WINDOW #5, 1,80,8,9: WIN
120 ' 1=input, 2=location description, 3=errors, 4=exits, 5=visible
    objects, 6=responses
130 '
140 '
150 REM store widths of windows
160 DIM wide(6):wide(0)=80:wide(1)=29:wide(2)=80:wide(3)=47:
    wide(4)=80:wide(5)=80:wide(6)=80
170 '
180 '
190 REM clear two windows and divide screen
200 PEN #2,2: PAPER #2,1: PEN #6,2: PAPER #6,1: CLS #2: CLS #6
210 MOVE 0,116: DRAW 242,116: DRAW 242,0: DRAW 0,0: DRAW 0,116: MOVE
    246,116: DRAW 639,116: DRAW 639,0: DRAW 246,0: DRAW
220 '
230 '
240 REM initialise objects and locations
250 REM read object data into array
260 RESTORE 5030
270 FOR x=1 TO nobjects
280 READ object$(x),obloc(x),obstat(x)
290 NEXT x
300 RESTORE 5040
310 FOR x=1 TO nlocations
320 READ location$(x),exitcode(x)
330 NEXT x
340 '
350 '
360 REM initialise players location
370 ppos=2
380 '
390 '
400 REM main game loop starts here - first we reset the location
410 ' 1. print location description
420 CLS #2: PRINT #2,USING "&";"You are in ";location$(ppos): PRINT
    #2
430 ' 2. print the exits
440 exitprint=0:RESTORE 530 'set exitprint flag and data pointer
450 FOR x=1 TO 8
460 READ direction$,dircode
470 IF (exitcode(ppos) AND dircode)<>dircode THEN GOTO 520
480 IF exitprint>0 THEN GOTO 510
490 exitprint=1
500 PRINT #4, "Exits lead ";direction$;: GOTO 520
510 PRINT #4, ",";direction$;
520 NEXT x
530 DATA North,128,Northeast,64,East,32,Southeast,16,South,
    8,Southwest,4,West,2,Northwest,1
540 '
550 ' 3. Print the visible objects
560 CLS #5: obprint=0 'set the object print flag
570 FOR x=1 TO nobjects
580 IF obloc(x)<>ppos THEN GOTO 630
590 IF obprint>0 THEN GOTO 630
600 obprint=1
610 PRINT #5, "You can see ";object$(x);: GOTO 630
620 PRINT #5, ",";object$(x);
630 NEXT x
640 '
650 ' 4. Get an input
660 i$=""
670 PRINT #1, CHR$(243);" ";
680 a$=INKEY$: IF a$="" THEN 680
690 IF (ASC(a$)<65 OR ASC(a$)>122) THEN 680
700 POKE pk,ASC(a$): CALL cl: LINE INPUT #1, i$
710 '
720 REM split input up into separate words
730 i$=i$+CHR$(32): words=1
740 FOR letter = 1 TO LEN(i$)
750 t$=MID$(i$,letter,1)
760 IF ASC(t$)<>32 THEN word$(words)=word$(words)+t$: GOTO 780
770 words=words+1: IF words>maxwords THEN PRINT #3, "Help! I can't
    cope with that many words.": letter=LEN(i$)
780 NEXT letter
790 '
800 REM 5. check words against vocabulary
810 wordsfound=0: verbsfound=0: obsfound)0:diryfound0: 6erb=0:
    object=0: direction=0: oops=0
```

```
820 FOR x=1 TO (words-1)
830 wordchecked=0
840 '
850 REM check for a verb
860 RESTORE 5060
870 FOR v=1 TO nverbs
880 READ verb$
890 IF word$(x)<>verb$ THEN GOTO 930
900 wordsfound=wordsfound+1: verbsfound=verbsfound+1: IF
    verbsfound>1 THEN PRINT #3, "Too many verbs in that sentence.":
910 IF objects>1 THEN PRINT #3, "Try rephrasing that...": x=words:
    oops=1: GOTO 1180
920 verb=v: v=nverbs:wordchecked=1
930 NEXT v
940 IF wordchecked=1 THEN GOTO 1180
950 '
960 REM check for object
970 RESTORE 5070
980 FOR o=1 TO nobnames
990 READ obname$,obno
1000 IF word$(x)<>obname$ THEN GOTO 1040
1010 wordsfound=wordsfound+1: obsfound=obsfound+1: IF obsfound>1
     THEN PRINT #3, "Too many objects in that sentence.": x=
1020 IF verb=0 THEN PRINT #3, "Try rephrasing that...": x=words:
     oops=1: GOTO 1180
1030 object=obno: o=nobnames: wordchecked=1
1040 NEXT o
1050 IF wordchecked=1 THEN GOTO 1180
1060 '
1070 REM check for a direction
1080 RESTORE 5080
1090 FOR d=1 TO ndirections
1100 READ direction$,dircode
1110 IF word$(x)<>direction$ THEN GOTO 1160
1120 wordsfound=wordsfound+1: dirsfound=dirsfound+1: IF dirsfound>1
     THEN PRINT #3, "Too many directions.": x=words: oops
1130 IF words>2 THEN PRINT #3, "I don't understand": oops=1:
     x=words: GOTO 1180
1140 IF (dircode AND exitcode(ppos))<>dircode THEN PRINT #3, "You
     can't go in that direction.": oops=1: x=words
1150 d=ndirections: wordchecked=1
1160 NEXT d
1170 IF wordchecked=0 THEN PRINT #3, "I don't understand
     ";word$(x);: x=words: oops=1
1180 NEXT x
1190 IF oops=0 THEN PRINT #3, "OK..."
1200 STOP
5000 '
5010 REM daca lists for objects and
     locations
5020 '
5030 DATA "a dirty
     handkerchief",1,128,"a large
     chest",2,0
5040 DATA "the sitting room. There is a
     smell of moth-balls and a large pile of
     dirty clothes in the corner. The furnitu
5050 DATA "the bedroom. The bed hasn't been made
     and the whole room is even dirtier than the
     sitting-room - if that is p
5060 DATA "get","drop"
5070 DATA "hanky",1,"handkerchief",1,"chest",2
5080 DATA "north",128,"n",128,"northeast",64,"ne",
     64,"east",32,"e",32,"southeast",16,"se",16,"south",
     8,"s",8,"southwest"
5090 RESTORE 5130
5100 FOR pk= HIMEM+1 TO HIMEM+6
5110 READ nn: POKE pk,nn
5120 NEXT pk
5130 DATA 62,0,205,12,187,201
5140 pk=HIMEM+2:cl=HIMEM+1
5150 RETURN
```

Clue Sniffing with the Pilgrim

This month's selection courtesy of Darrel Smith, Stephen Parkinson, Mark Walker

Kentilla

Drop the moss in the plains then look.

Price of Magik

Those pesky spells (or most of them):

Spell	Focus	Use
DET	Elder cross	To feel secure
DOW	Pendulum	Check objects for magik
BOM	Trumpet	Wake up
XAM	Prism	Magikal use of object
ZEN	Small mirror	Move fast
FIX	Valerian plant	Cure oneself
FLY	Broom	Float upwards
SEE	Feldspar lens	Find hidden places
MAD	Grimoire	Feel crazy
FIN	Silver mail	Change into fish
IBM	Blue box	Terrify
DED	Wheel	All magik neutralised



Morden's Quest

To get past waterfall, sacrifice frog with dagger.
To get the battery for the droid, search the straw in the barn with geiger counter.
Give Spiderman the newspaper to get the paint and remote control.
Spray paint on invisible barrier to find code and take machine part.
Pressing button on remote control in a special place reveals an exit down.
Give broken pyrites to jester to enter adventure development room.
Leave room to receive last machine part.

Message from Andromeda

Kill the vine with the knife.
Wear gloves, get fungi, throw at the slug to get past him.
Blow up cave-in to get battle axe.
Kill commander with axe to get key for computer.
Password for computer is "old".
Use transporter to get back to the galaxy on the landing pad.

The Big Sleaze

Examine car to get dynamite.
Put dynamite in keyhole and light fuse to open safe (but go north and wait to shelter from blast).

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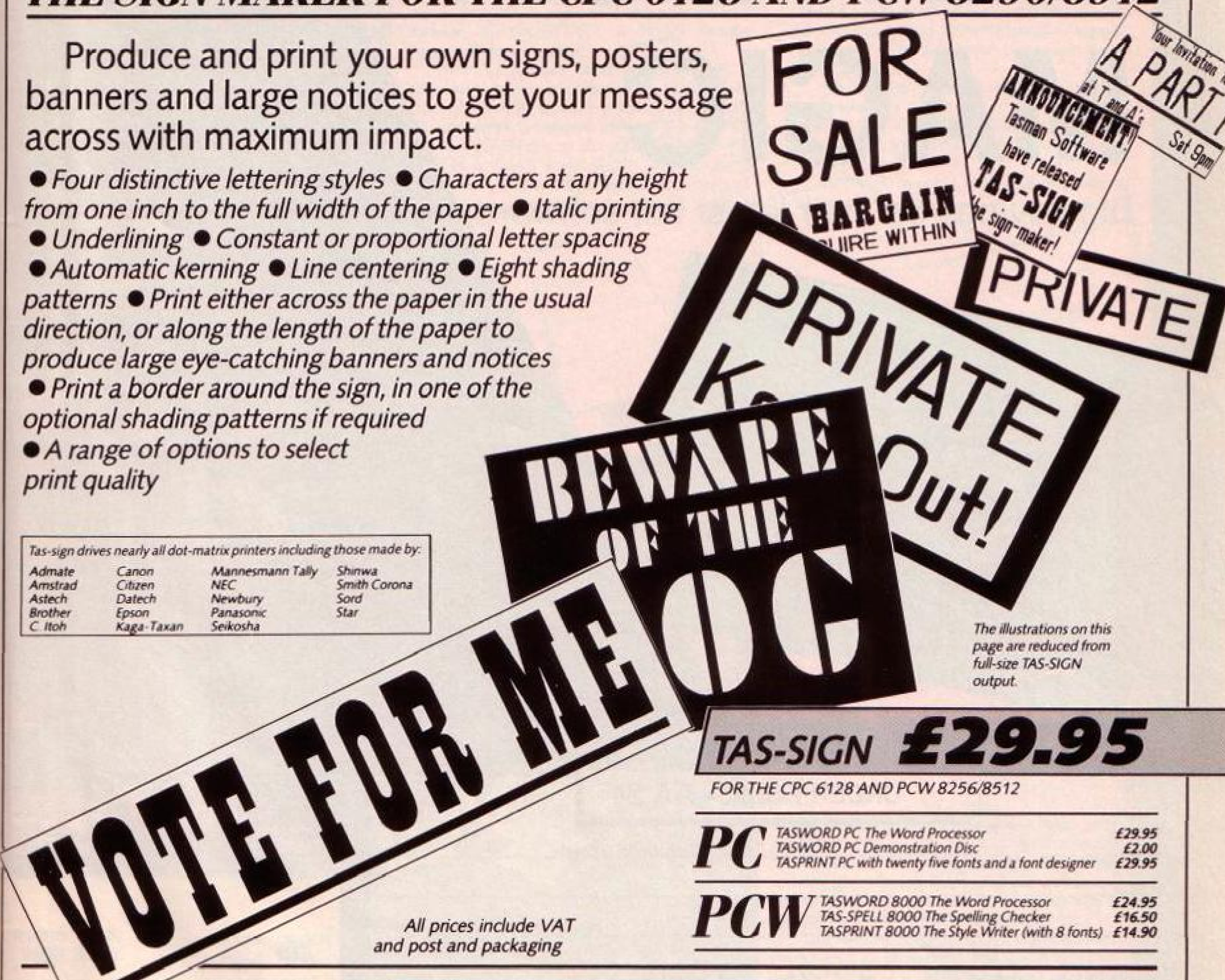
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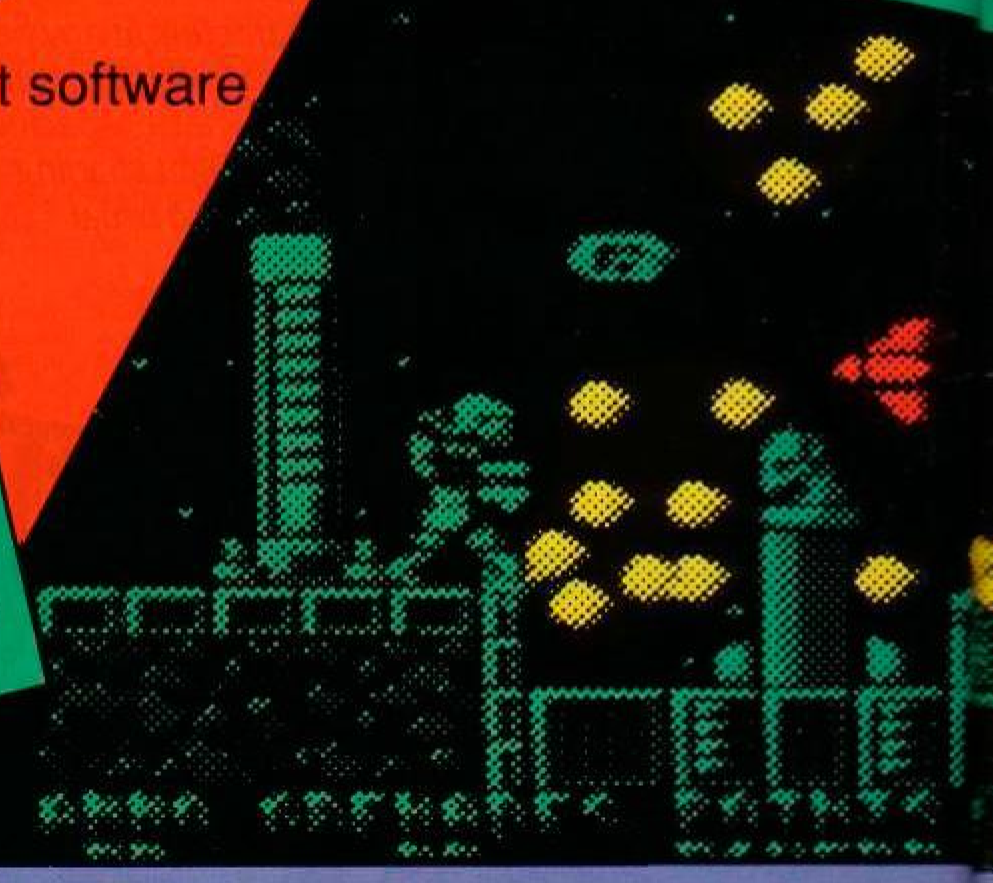
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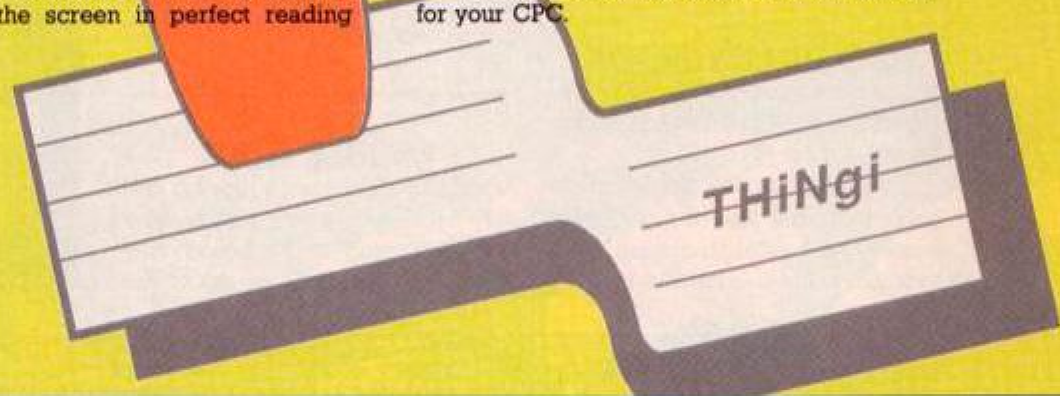
What's white, dangles papers next to your computer screen, and costs two pounds less than in the shops? Yes, a Thingi bought through Amstrad Action.

This remarkable computer accessory – an idea so simple it's ingenious – could dramatically ease your hours at the keyboard. All it is is a cleverly shaped piece of plastic that attaches via Velcro to the top of your micro. But with a Thingi on your CPC you can have documents, letters or program listings clipped right next to the screen in perfect reading position.

Any task involving copying off paper is thereby made much easier and faster. In fact, the clip supplied is sturdy enough to support an issue of Amstrad Action open, say, at the Type-Ins section.

The Thingi comes in two versions, one for positioning to the left of the screen, the other to the right – the Velcro adjustment allows easy readjustment or temporary removal.

A really sensible, cost-effective add-on for your CPC.



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It's specially designed to take Amsoft 3" disks and will hold 20 (including their cases). A classy way to keep your worktop organized.

VIDI

Save £20 on the amazing digitizer – only £69.95!

An accessory which adds a dramatic new capability to your CPC. You can use it to 'grab' pictures from a video recorder or video camera and display them on your computer screen to save, edit (using an art software package such as *Art Studio*) or print out.

Draws the crowds at all the Amstrad shows with its impressive images, which can handle colour as well as mono. And now you can buy it for £20 off the recommended retail price of £89.95.

It comes complete with connections to any CPC and with software on disk.

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REAR VIEW

Sugarman stands up for everything that's honest, decent and money-making. All is revealed about the infamous cover-up.



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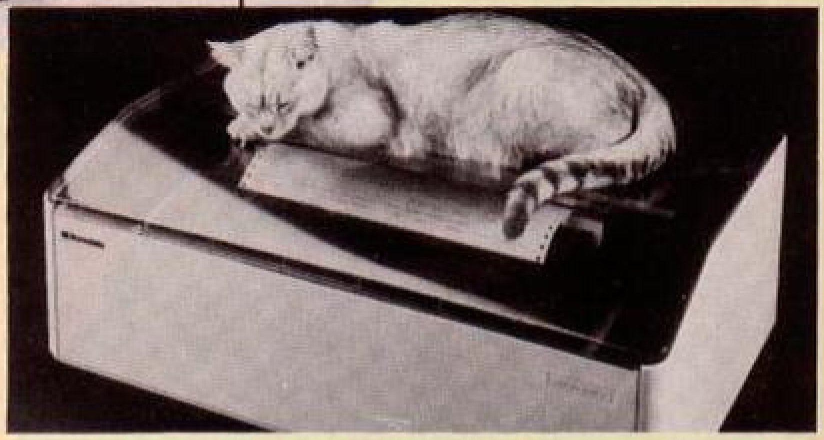
It's true. Your printer does talk. After extensive tests in Hirooka, Japan, scientists have revealed all.

Apparently the printers come out of their shell late at night when surrounded by 101 microphones. A spokesman for the Printers Do Talk society claimed that printers have a universal language. It goes something like clack clack clack brrrr clack clack.

MOUSE TRAP

Accodata are giving away one free feline with every printer muffler. According to Accodata they look good sprawled on top of the £69 muffler, and even better on the £75 model.

Felines have been noted for their small furry mammal catching ability and their coats have been seen sauntering on several sexy shoulders. Get your muffler from Accodata: guaranteed rodent free, quiet until hungry and the best looker in town. Meeeaaww! (Brought to you by the Hi! I'm a pathological Liar Dept.)





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